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HE WRITINGS OF BENJAMIN FRANKLIN

VOLUME I

The Co.

THE WRITINGS
OF
BENJAMIN FRANKLIN

COLLECTED AND EDITED
WITH A LIFE AND INTRODUCTION

BY

ALBERT HENRY SMYTH

VOLUME I

New York
THE MACMILLAN COMPANY
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TO

JOHN BIGELOW

WHO AS CONSUL AT PARIS AND AS MINISTER TO FRANCE

FOLLOWED THE ILLUSTRIOUS FOOTSTEPS OF

BENJAMIN FRANKLIN

AND IN A LONG AND BENEFICENT CAREER HAS

CONSPICUOUSLY EXHIBITED

IMMUTABLE CONFIDENCE IN POPULAR GOVERNMENT AND

EXALTED DEVOTION TO POPULAR WELFARE

THIS WORK IN GRATEFUL REMEMBRANCE OF MUCH KINDNESS

IS MOST RESPECTFULLY DEDICATED

BY

THE EDITOR

PREFACE

THE writings of Benjamin Franklin have been several mes published. It is nearly ninety years since William `emple Franklin completed the long delayed edition of his randfather's works; it is seventy years since Jared Sparks egan the publication of his ten laborious volumes; and it s almost twenty years since Mr. John Bigelow prepared hat then seemed to be the final edition of Franklin's works nd correspondence.

W. T. Franklin's edition is no longer of the slightest value o the student of history. He was devoid of literary facility, nd was overwhelmed by the magnitude of his task. In is work there is neither sense of proportion nor judgement n selection. Jared Sparks, by unwearied industry, rendered . great service to American history, and preserved from blivion many historical papers of the highest importance; ut he was disloyal to his author, and took liberties with his locuments. He corrected and altered at pleasure. In an ttempt to give a classic pose to his heroes, he revised spell- ng and grammar, and omitted passages which he deemed beneath the dignity of history, and gave no sign withal that he had tampered with either style or substance.

Mr. Bigelow based his edition upon Mr. Stevens's collec- tion of Franklin papers, then recently purchased by the United States Government, and published much that was new and invaluable. Unquestionably his edition is the best that has yet appeared, albeit that, here and there, he has over- looked, or at least not corrected, the defective transcripts made by Sparks.

At the present time, when preparations are making for an international celebration of the two hundredth anniversary of Franklin's birth, it has been thought that a revised and authoritative edition of his Works might be possibly the best and most enduring monument that can be reared to his memory.

The present edition is the result of a personal examination of all the extant documents thereunto appertaining in Europe and America, accessible to the editor. No time or expense has been spared to discover the whereabouts of Franklin's manuscripts and to secure accurate and literal transcripts thereof. Many manuscripts have been discovered since Mr. Bigelow's edition went to press in 1887. In the University of Pennsylvania alone there is a collection of more than eight hundred of Franklin's private papers, which was brought to light in 1903, and has never been seen until now by any editor.

The American Philosophical Society is the depositary of the most valuable portion of Franklin's manuscripts. It is an immense collection. The stoutest heart might well be appalled by the volume and range of those thirteen thousand documents, comprising a correspondence carried on in nine languages with all the world, and dealing with every theory of philosophy and every scheme of politics familiar and unfamiliar in the eighteenth century. For the first time they have now been studied minutely, and every sentence subjected to careful examination.

I have pursued the quest after Franklin holographs in England, France, Germany, Austria, and Italy, and I believe I have examined nearly every document that is known to exist in Europe and America.

I have striven to make the present edition as complete

and as accurate as human industry can make it. Every document here reprinted has been copied faithfully from the original; every point, capital letter, and eccentricity of spelling being loyally preserved. This accords with the requirements of modern historical research, and corresponds to Franklin's own feeling and desire. He wrote to the printer Woodfall, enclosing a contribution to his paper, asking him to take care that the compositor observed "strictly the Italicking, Capitalling and Pointing." And he told his son that his "edict of the King of Prussia" had been reprinted in the *London Chronicle*, "but stripped of all the capitalling and italicking that intimate the allusions and mark the emphasis of written discourses, to bring them as near as possible to those spoken. Printing such a piece all in one even small character, seems to me like repeating one of Whitefield's sermons in the monotony of a school boy."

In making these fresh copies from the original manuscripts, I have corrected more than two thousand errors in the previous editions. Some of these errors are wilful, others the result of carelessness; most of them represent important alterations of language, perversions of meaning, and omissions of necessary details. Many letters hitherto marked as "incomplete," "mutilated," etc., have now been completed by the discovery of the missing leaves. Letters have been carelessly assigned to persons to whom they were never addressed, and their authorship has been ascribed to persons by whom they were never written. A thorough examination of the originals has resulted in the correction of many of these errors, and the determination of the history of letters that have hitherto been regarded as doubtful.

Sparks published 1016 of Franklin's manuscripts, whereof

407 had not appeared in any previous collection. He rounded out his ten volumes by the insertion of 372 letters addressed to Franklin, whereof 213 had not previously been printed. Mr. Bigelow published 1357 of Franklin's manuscripts, whereof 380 were not printed by Sparks. His allotted space permitted him to include only 210 letters to Franklin, whereof all but 21 are to be found in Sparks.

In the present edition are 385 letters and 40 articles not previously printed by any editor, all of which are from the pen of Franklin. Some of the best of his writings are to be found in the eighteenth-century newspapers, where apparently no thorough search has hitherto been made for them. I have examined all the issues of the *New England Courant*, *Pennsylvania Gazette*, *American Weekly Mercury*, *Goddard's Pennsylvania Chronicle*, *London Daily Advertiser*, *London Chronicle*, and *London Packet*. For the first time in any edition the "Dogood Papers" are here reprinted from the *Courant*. They are the earliest of young Franklin's compositions and highly interesting; they show how early his mind was bent in the direction it followed through life, and how early he acquired the fluency and precision of his literary style.

I have printed several characteristic essays from the *Pennsylvania Gazette* which have escaped the notice of other editors, and certain political papers from the *Pennsylvania Chronicle* which Franklin himself recorded as worthy of preservation.

Nearly all the prefaces to "Poor Richard's Almanac" have been reprinted because they best show the qualities of Franklin's style. An early "memorial" in Franklin's handwriting (1731), an autograph report made by him of

Pitt's speech upon the Stamp Act, and many letters of great scientific interest and political importance are for the first time here printed.

The letters which I have published from other writers to Franklin have been mainly chosen for their relation to letters from Franklin that appear elsewhere in the text. Certain others are, in nearly every case, of unusual historical value, not elsewhere published. I would call particular attention to the letters from Benjamin Vaughan and David Hartley, two of Franklin's English friends who kept him informed as to the policy of parties and the trending of public opinion in England during the Revolutionary period.

The extraordinary letter of John Paul Jones (March 6, 1779) I have printed in full, although it is of great length, because of its remarkable interest, and because it exhibits the confidence that Jones reposed in Franklin and illustrates the reverential regard in which he held him. Letters written in French are reprinted in that language; those in Latin, Italian, German, and Spanish are translated.

It has been possible to include much new matter by the exclusion of a few slight unmeritable essays, and the rejection of certain works which Franklin declared he did not write. In their zeal for the fame of Franklin, his editors have too hastily ascribed to him works which are now known to be by other hands. They have reprinted "The Principles of Trade," which was written by George Whatley; essays "On Government," written by John Webbe; "An humble Petition presented to Madame Helvétius by her Cats," written by Abbé Morellet; and "A True State of the Proceedings in the Parliament of Great Britain," written by Arthur Lee; the nature of these several omissions and

the reasons for passing judgement upon them will be found set forth in the Introduction. I have ignored the coarse Rabelaisian humour of the letter to The Academy of Brussels, though it excited the laughter of a Spanish grandee and won the approval of an English scientist. In common with certain other bagatelles, which have occasionally crept into the twilight of furtive and surreptitious publication, this letter was never intended for any other career than circulation among the author's private friends. I have omitted the voluminous "Historical Review of Pennsylvania" because Franklin assured Hume that it was not of his writing; but I have included the Canada pamphlet because I have found the problem of its authorship so difficult, and the question of the relative shares of Franklin and Jackson so intricate, that I am quite unable to unloose its Gordian knot.

A serious scholastic defect in previous editions is the lack of any indication as to the places where the originals of the printed documents are to be found.

In the present edition I have invariably named in each case the collection, public or private, which is the home of every manuscript that I have examined, and of every one that I have been able to trace.

I have tried to be brief and sparing in annotation, bearing in mind the sarcasm of John Quincy Adams concerning one of my predecessors, that he had impoverished his edition with his notes.

The completion of this long and laborious task would have been impossible but for the cordial and unstinted assistance of many Franklinians, to whom the editor is under heavy obligations. More is their due than more than all can pay. I am deeply indebted to the custodians of the

public collections of Franklin's papers. Chief of all stands Dr. I. Minis Hays, the Librarian of The American Philosophical Society, from whom came the first suggestion of this undertaking, and who has never failed to further its progress by encouragement and fruitful suggestion. It is due to his pride in The Philosophical Society's possession of the Franklin papers, and to his urgent enthusiasm and unsleeping care, that they have been admirably classified and calendared and made easily available to scholars.

Mr. Worthington C. Ford, Chief of the Division of Manuscripts of the Library of Congress, has cheerfully responded to numberless calls upon his limited time and illimitable knowledge. He holds it a vice in his goodness not to do more than he is requested, and I am beholden to him for many kindnesses, without which this work would be shorn of some of its fairest additions.

The collection of Franklin papers recently acquired by the Library of the University of Pennsylvania was promptly and generously placed at my service. Never before had editorial eyes rested upon these valuable and voluminous historical records. For this opportunity I gladly thank Dr. S. Weir Mitchell, who procured the collection, and whose kindness is unending, and Dr. Morris Jastrow, the learned Librarian of the University.

In Europe I am under especial obligations to Mr. Hubert Hall, the Deputy Keeper of the Public Records in London, and to M. Louis Farges, Chef du Bureau Historique, Departement des Affaires Etrangères, Paris.

Mr. H. Buxton-Forman, C.B., Assistant Secretary of the General Post-office, London, kindly permitted me to consult the "American Letter Book," "The Commission Book,"

and the general account books, containing official correspondence with Franklin as Deputy Postmaster-General for the North American colonies, with balances of his accounts.

Although whole libraries of Franklin's papers are contained in the great public collections of two continents, they are far from comprising all the products of that fertile and most busy pen. They lie like "scattered sedge afloat," dispersed far and wide over the world, and found at times in most unlikely places. Many owners of such papers have admitted me to their private collections and permitted copies to be made for publication. The family of the late Alexander Biddle, Esq., of Chestnut Hill, Philadelphia, very generously allowed me to examine the papers of Jonathan Williams, the grandnephew of Franklin, where, among a variety of documents both French and English, I found twenty of Franklin's letters. For permission to publish some of these, I am greatly indebted to Mr. Louis A. Biddle and Miss Marion Biddle.

The important correspondence of Franklin with Peter Collinson has but recently been discovered, and is in the possession of Mr. J. Pierpont Morgan. Twelve letters throwing much light on the beginnings of electrical study, and illustrating the attitude of Franklin toward the proprietary government, are here printed.

Mrs. L. Z. Leiter, who owns the valuable correspondence of Franklin and David Hartley, M.P., comprising sixty-five manuscripts relating to the exchange of prisoners and to the treaty of peace, graciously gave me every facility for examining and copying them.

Hon. S. W. Pennypacker, Governor of Pennsylvania, courteously brought to me the correspondence of Franklin

with William Strahan, and a holograph copy made by Franklin of Pitt's speech on the Stamp Act. His collections of materials for the illustration of the history of Pennsylvania are unrivalled, and he withheld from me nothing that would add more "feathers to my wings."

Forty-eight letters written by Franklin to Mary Hewson were kindly laid before me by the latter's great-grandson, Dr. T. Hewson Bradford. These letters had all appeared in print, but I found that Sparks had dealt with them with his unfortunate inaccuracy, and I have been able, by careful collation, to replace omitted paragraphs, and to restore to the letters characteristic personal touches which Sparks had unjustifiably suppressed as "beneath the dignity of history."

Mr. Charles Francis Adams, in addition to many helpful courtesies in Boston, opened to me the great manuscript collections of "the House of Adams," and enabled me to verify the correspondence between Franklin and John Adams.

I gladly thank Dr. F. B. Dexter, Librarian of Yale University, for exact copies of Franklin's letters to Jared Eliot, which came to the library of Yale from Rev. Thomas F. Davies, in 1874.

In numerous private autograph collections I found interesting letters which sometimes cleared up doubtful passages in Franklin's career. I may particularly mention the collections of Mr. Eliot Reed, of Earlsmead, Hampstead Heath; Mr. Simon Gratz, of Philadelphia; Mr. William F. Havemeyer and Mr. Adrian H. Joline, of New York; and Mr. John Boyd Thacher, of Albany.

The great kindness of strangers is a notable encouragement to him who is engaged in any arduous enterprise. From

many persons quite unknown to me came valuable fragments of information, and M. Mossant, Conseiller Général, Bourg-de-Péage, France, entrusted to the Atlantic and to me the original of a highly characteristic letter from Franklin to Mr. Viny.

Although such abundant stores of Franklin's papers exist, much, I fear, has been for ever lost. I have sought in vain to trace the letters that Franklin wrote to three of his most intimate and faithful correspondents: Jonathan Shipley, Bishop of St. Asaph's; Sir Edward Newenham, member of the Irish Parliament; and Jan Ingenhousz, physician to Maria Theresa.

Archdeacon Thomas, of Llandrinio Rectory, kindly assisted me in my quest for the Shipley correspondence. The present representative of the bishop, Mrs. Rowley Conway, of Bodrhyddon, knows nothing of the fate of the papers, and I have been unable to obtain any information concerning them.

Sir Edward Newenham and Franklin were close friends. They exchanged gifts and letters. Franklin sent Newenham a bust of himself, and Newenham sent Franklin a Galway car and harness. Franklin tried to have Newenham's son appointed to the diplomatic service of the United States. Newenham was passionately devoted to the American cause. Upon hearing of the death of Montgomery at Quebec, he appeared in Parliament dressed in deep mourning. He wrote numerous political tracts under the names 'Brutus,' 'Junius,' and 'Leonidas.' Many letters from him to Franklin are extant, but only three addressed to him by Franklin have been discovered. Dr. Edward Dowden made researches for me in County Cork, but could learn

nothing of the lost letters, and Captain H. Newenham, of the Royal Fusiliers, tells me that he fears Sir Edward's papers have been destroyed for family reasons.

The loss of Franklin's letters to Ingenhousz is particularly to be deplored. Ingenhousz was an eminent scientist, a physician of great distinction, and enjoyed the confidence of the Empress Maria Theresa and of Joseph II. He corresponded with Franklin upon questions of medicine, natural history, and electricity, and through him Franklin influenced to some extent the political opinion of Austria. Nearly a hundred letters from him to Franklin exist, covering a wide range of subjects, and exciting eager curiosity to see Franklin's replies. Of such replies only fifteen have been published, and all of them from rough drafts in The American Philosophical Society or Library of Congress. I inquired of Dr. Reinhold Koser, General Director of the Prussian Archives, and the chief living authority upon the times of Frederick the Great; and I inquired of Hofrat Dr. Winter, Direktor des Haus-Hof- und Staats-archiv, Vienna, and upon hearing nothing of the letters in Germany or Austria, I despaired of discovering them, when I unexpectedly learned that Dr. Julius Wiesner, of Vienna, the celebrated botanist, was writing a book upon Ingenhousz and his relation to Franklin. I immediately entered into correspondence with Dr. Wiesner, and learned that Ingenhousz's papers had been sold at auction sixty years ago. A portion of them became the property of Dr. Oskar, Freiherr von Mitis, in Vienna, but there were no Franklin letters among them. In 1901 another interesting little bundle of Ingenhousz's letters was sold by Gilhofer and Ranschburg, in Vienna. Here were letters from Franklin to Ingenhousz dated September 19, 1769, and April

26, 1777; also a copy of Franklin's paper, "Comparison of Great Britain and the United States in regard to the Basis of Credit in the two Countries" (1777), in Franklin's hand, with a translation by Ingenhousz, evidently intended for the consideration of the empress. For all that is new in this work concerning the correspondence and the relation between Franklin and Ingenhousz, I am indebted to Dr. Julius Wiesner and to Baron von Mitis.

I tried to discover the letters that must have passed between Franklin and Bentley, the partner of Wedgwood. Not one of them is known to exist. F. H. Wedgwood, Esq., of Etruria, writes me, "What has happened to the Bentley letters in the Wedgwood-Bentley correspondence (the Wedgwood ones are being published privately by the Dowager Lady Farrer) is a mystery."

Many of the letters written by Franklin to his sister Jane Mecom were destroyed by mice; children rummaged the correspondence of Franklin and Francis Hopkinson; the letters to Dr. John Jeffries were destroyed in the fire that burnt his mansion in Boston in 1820; and the same fate befell the Franklin letters among the papers which Noble Wymberley Jones had saved from the Revolution, when the flames destroyed his house in 1796.

I am much indebted to the Hopkinson family for a sight of their family papers, which are now carefully and wisely guarded; to Dr. B. Joy Jeffries, for information concerning his grandfather's diary and life in Europe; and to Mr. W. J. DeRenne, descendant of N. W. Jones, for a letter from Jones to Franklin on the political situation in Georgia.

I sought to verify the correspondence with Lord Kames, but was told by H. S. Home-Drummond, Esq., that the

letters were not at Blair-Drummond, nor could he imagine what had become of them.

Little of Franklin's correspondence with scientific men can now be recovered. He must have written many letters to Erasmus Darwin, but they are not to be found in the collection of the latter's papers kept at Newnham Grange, Cambridge; and Professor George H. Darwin thinks "they must have been removed by some one long ago, as they would otherwise surely be there."

Sir Robert Ball tried in vain to trace for me the letters which were written to Maskelyne and Sir William Herschel. The records of the Royal Observatory, Greenwich, are very scanty before the time of Sir George Airey. Mr. Alexander S. Herschel could find at Slough only a copy of the letter written by his grandfather, Sir William Herschel, to Franklin, February 18, 1787. Mr. Herschel says in his letter to me: 'I should add that among the Herschel Papers here in preservation hardly a single autograph or copied letter from other savants *to* grandfather are to be found; as if they had all been taken with her to Hanover, perhaps, by Miss C. Herschel, or were otherwise distributed, perhaps, during the lifetimes of Sir W. and Miss C. Herschel. It is difficult to explain how so little, or hardly *any* vestige should remain of what must, in a long lapse of years, have at last become quite a bulky correspondence!"

I was more fortunate with regard to the letters that passed between Franklin and le Duc de Nemours, and received from the latter's great-grandson, Colonel Henry A. Du Pont, copies of all their correspondence.

I have attempted in this volume to review and to describe all the writings of Franklin. I have approached the task

with, I hope, due timidity and humbleness. To perform it to full satisfaction requires the robust scholarship of those sons of Anak, who before these lesser days of the specialist took all knowledge to be their portion. I believe that no attempt has ever been made to take a comprehensive survey and estimate of Franklin's work, but the recent scientific essays of Arthur Schuster, J. J. Thomson, Sir Oliver Lodge, and William Garnett have shown how far Franklin "dipt into the future," and "saw the vision of the world and all the wonder that would be."

I have also tried to complete the narrative of his life from the point when, to our unending regret, he ceased to tell the story; and I have hope that in the critical Introduction, the reprint of the Autobiography, and in the review of the later life, which will appear as a terminal essay in the tenth volume, nearly everything of consequence with regard to that brave and busy career will be found.

There remains to me the pleasure of expressing my deep obligation to Mr. John Bigelow, Mr. Richard Garnett, C.B., Sir Richard Tangye, Lord Edmond Fitzmaurice, Mr. Henry Vignaud, M. Georges Bertin, Signor Arturo Graf, Signor Fr. Novati, Count Stanislaus Tarnowski, M. Emile Legouis, the Officers and Librarian of the Royal Society, Mr. J. G. Rosengarten, Dr. Samuel A. Green, Mr. Lindsay Swift, Mr. John W. Jordan, Mr. Wilberforce Eames, Mr. James G. Barnwell, Mr. Bunford Samuel, Mr. Howard C. Myers, Dr. H. F. Keller, Dr. Warner, Mr. J. S. Morgan, J. Pearson and Company, M. Noël Charavay, Mr. Joseph F. Sabin, and Mr. Frank T. Sabin.

ALBERT HENRY SMYTH.

SEPTEMBER, 1905.

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TABLE OF ABBREVIATIONS

A. P. S.	American Philosophical Society.
B. M.	British Museum.
B. N.	Bibliothèque Nationale.
D. S. W.	Department of State, Washington.
H.	Harvard University.
L. C.	Library of Congress.
L. L.	Lenox Library.
Lans.	Lansdowne House.
M. H. S.	Massachusetts Historical Society.
P. C.	Private Collection.
P. H. S.	Pennsylvania Historical Society.
P. R. O.	Public Record Office.
P. R. O. A. W. I.	Public Record Office: America and West Indies.
P. A. E. E. U.	Paris Departement des Affaires Etrangères, — Etats-Unis.
U. of P.	University of Pennsylvania.
Y.	Yale University.
B.	Bigelow.
F.	Benjamin Franklin.
S.	Sparks.
V.	Benjamin Vaughan.
W. T. F.	W. T. Franklin.

Franklin's Mss. exist in several forms. He made a rough draft of every letter that he wrote; he then made a clean copy to send away, and often retained a letter-press copy. To indicate the state of the document, the following abbreviations are used: d. = draft, trans. = transcript, l. p. = letter-press copy.

INTRODUCTION

THE FRANKLIN MANUSCRIPTS

FRANKLIN preserved all his papers. He had the magpie trait of hoarding things. Every letter written to him, every rough draft and copy of a letter written by him, every visiting card, and every invitation to dinner or to a Masonic lodge meeting was saved and cherished, and went to swell the tremendous aggregate of his collection of papers. He jealously guarded these souvenirs, for he was thoroughly aware of their importance to the future historian of America. No public man has ever more completely revealed himself or more copiously recorded the march of events in his time. His care in this respect is at once the delight and the despair of his biographer.

It was one of the chief regrets of his life that a chest of private papers which he left with Mr. Joseph Galloway when he went to France in 1776 was broken open and plundered. Benjamin Vaughan told him "with infinite concern" that Galloway had written to him that "the rebels have got at your papers and destroyed them." Whether it was the "rebels" or the British troops who did this destruction is unknown. Certain it is that Mr. Bache hurried out to Trevose, Joseph Galloway's country seat near Philadelphia, and gathered up the loose and scattered leaves and put such of them as could be found into the chest, and brought the poor remnant back to

Philadelphia. By this act of vandalism the papers relating to the earliest period of Franklin's life were irretrievably lost. Eight letter-books were in the chest containing the drafts of Franklin's correspondence while in England, from 1757 to 1762, and from 1764 to 1775; six of these were lost and have never been recovered.

Although he set a high value upon his papers, and was anxious for their preservation, he was disorderly in the care of them. They lay loosely about him. He declares in his Autobiography that he found order with regard to places for things, papers, etc., extremely difficult to acquire: "In truth I found myself incorrigible with respect to order, and now I am grown old and my memory bad, I feel very sensibly the want of it."

William Alexander was so much impressed by Franklin's carelessness with regard to documents that he wrote to him (March 1, 1777): "Will you forgive me my Dear Sir for noticing, that your Papers seem to me to lye a little loosely about your hands — you are to consider yourself as surrounded by spies and amongst people who can make a cable from a thread; would not a spare half hour per day enable your son to arrange all your papers, useless or not, so that you could come at them sooner, and not one be visible to a prying eye."

His negligence never, however, exposed him to danger. He was reticent where silence was a virtue, and wary and cautious where prudence was required. No man could better keep his own counsel. The most indefatigable inquiry has failed to ascertain the source from which he obtained the Hutchinson Letters, or to discover who was the mother of his son or of his grandson. He was sur-

rounded by spies while he lived at Passy. Enemies were in his household. Emissaries of Lord North and Stormont dogged his footsteps, peered over his shoulder, and pried into his papers; but nothing was found or quoted that derogated from his dignity or honour.

Major Thornton and the mysterious "Edwards" furtively copied his letters, which lay temptingly open and astray upon his table. M. de Moiande and Charles Parker Forth and "Doctor" Moore hastened to send to Lord North the gossip they had bought from servants of the households of Beaumarchais and Franklin. But with all their strategy and cunning watchfulness they failed to discover one important political secret or to confound one of Franklin's subtle plans.

By his will he bequeathed all his manuscripts and papers to William Temple Franklin, his grandson, who had acted as his secretary in Paris, and who was very dear to him. He seems to have entertained an exaggerated notion of Temple's abilities, and to have believed him capable of properly sorting, arranging, and editing these multitudinous papers and giving them permanent literary form. But Temple Franklin had neither literary faculty or historic sense; he was indolent and timid, and aghast at the magnitude of the task before him. He culled out what he imagined to be the most important of the manuscripts, and carried them to London with the apparent intention of devoting himself to his editorial task.

The papers left by him in Philadelphia, by far the greater part of the whole collection, he bequeathed to his friend George Fox, from whose son, Charles P. Fox, they came to The American Philosophical Society, where they are now

carefully guarded. The announcement of the intention to make the society the custodian of these historical documents was made in a letter from Charles P. Fox to John Vaughan, Librarian, September 17, 1840: "Upon conversing with my sisters respecting the papers of Dr. Franklin, bequeathed by William T. Franklin, Esq., to my father, we have concluded they cannot be better disposed of than by presenting to the society of which he was the founder."

This collection is now contained in 76 folio volumes, and consists of 13,000 documents in nine languages. These volumes contain papers from 1735 to 1790, scanty for the earlier and voluminous for the later years. They are classified as follows:—

FRANKLIN PAPERS IN THE AMERICAN PHILOSOPHICAL SOCIETY

Vols. 1–39. Letters to Dr. Franklin, 1735–1790.
Vols. 40–43. Letters to Dr. Franklin, without date.
Vol. 44. Letters to Dr. Franklin, anonymous and without date.
Vol. 45. Drafts and copies of letters from Dr. Franklin, 1738–1789.
Vol. 46. Letters from Dr. Franklin to his wife, 1755–1774.
Vols. 47–48. Letters to various persons, 1710–1791.
Vol. 49. Papers on subjects of science and politics.
Vol. 50. Papers by Dr. Franklin on various subjects.
Vol. 51. Poetry and verses.
Vol. 52. Miscellaneous papers, 1670–1769.
Georgia papers, 1768–1775.
Vols. 53–55. Miscellaneous papers, 1770–1788.
Vol. 56. Miscellaneous papers without date.
Vol. 57. Memorials, petitions, etc.
Unnumbered Vol. Fragments and torn letters.
Unnumbered Vol. Scraps, memorials, etc.
Unnumbered Vol. Franklin papers: in France — Letters from Franklin.
Unnumbered Vol. Franklin papers: in France — Letters to Franklin.
Unnumbered Vol. Franklin papers: in France — Invitations, cards.
Unnumbered Vol. Franklin papers: in France — Court, marriage, funeral and meeting notices, invitations.

Unnumbered Vol. Franklin papers: in France — Oaths of allegiance, paroles, bonds of privateers, passports.

Unnumbered Vol. Franklin papers: in France — Letters from Franklin — Letters to Franklin — Miscellaneous.

Unnumbered Vol. Franklin papers: in France — Promissory notes, public loans and accounts.

Unnumbered Vol. Franklin papers: in France — Applications for appointments in army and navy.

Unnumbered Vol. Franklin papers: in France — Diplomatic, naval matters, military stores, indemnity.

Unnumbered Vol. Franklin papers: in France — Prisoners' assistance, to raise troops, for civil appointments, to settle in America, miscellaneous.

Unnumbered Vol. Franklin papers: in France — Household and personal accounts.

Unnumbered Vol. Franklin papers: in France — Miscellaneous letters in German.

Unnumbered Vol. Franklin papers: in England — Notices, invitations, visiting cards, notes, business cards.

Unnumbered Vol. Franklin papers: Wills, powers of attorney, indentures, bonds, agreements, notes, memoranda, bills, 1728–1768.

Unnumbered Vol. Franklin papers: Bills 1769–1788, drafts, accounts, checks, memoranda, bills of lading, public accounts.

Certified acts of Congress, 1776–1780.

Several volumes of miscellaneous account-books.

Eight volumes of letters to William Temple Franklin: Vols. 1–7, 1775–1790; Vol. 8, without date.

The manuscripts taken abroad by Temple Franklin have had an interesting history. After the publication of "The Life and Writings of Benjamin Franklin" (1817), the original papers were deposited for safe keeping with Herries, Farquhar & Co., bankers, 16, St. James's Street, London. William Temple Franklin married Hannah Collier, an English woman from Berkshire, removed to France, and died in Paris, May 25, 1823. His widow administered upon the estate, and on the 23d of September removed from the vaults of the bank the old chest containing the

Franklin manuscripts. For the next seventeen years nothing is known of their history. The "inconsolable widow," whose grief, as she testified upon her husband's monument in Père-lachaise, would end only with her life, married again in 1834, and continued to live with her second husband, Jean Ernest Etienne Montluc de la Riviere, at Étampes, until her death in 1846. It is not known what she did with the papers; but in 1840 they were found "loosely bundled up" on the top shelf of a tailor's shop in St. James's Street, where Temple Franklin had lodged. Many of the papers had doubtless been destroyed, and others were being cut into patterns at the time of the discovery. The finder ineffectually offered them for sale for ten or eleven years. They were refused by the British Museum and declined by Lord Palmerston. They were offered in vain to Edward Everett and George Bancroft, successively ministers to England. In 1851 a purchaser was found in Henry Stevens of Vermont, the well-known bibliophile, to whom the owner was recommended by Abbott Lawrence. Mr. Stevens sorted, repaired, and arranged the papers, gave again an air of respectability to their ragged disorder, and sold them to the United States for seven thousand pounds. They were placed in the Library of the State Department, and are now, with the exception of the Craven Street Letter Book, the Petition to the King, and some portions of the diplomatic correspondence, in the Manuscript Department of the Library of Congress. This collection, which bears the name of Henry Stevens, is in 14 folio volumes, containing 2938 papers. It comprises: 1. The Original Records or Letter Books of the American Legation in Paris during the Revolutionary War, and subsequently, 1776–1785, including corre-

spondence with the French Government; the negotiations for supplies to carry on the war; papers relative to Paul Jones; Captain Cook and his voyage of discovery; privateering; negotiations for peace; the Treaty; and correspondence with various countries of the continent.

2. Franklin's original manuscripts; his essays, miscellanies, correspondence, bagatelles, etc.

3. His journals and memoranda for the Autobiography.

4. The original correspondence with the American government.

5. The Original Petition of the Congress to the King, October, 1774, signed in duplicate by all the fifty members of the Continental Congress. This Petition was signed by the Members in two copies. Both were sent, by different ships, to Franklin. One he kept, the other he presented to the Minister for the King. The King's copy is now in the Public Record Office.

6. Correspondence with David Hartley, chiefly concerning the exchange of prisoners; the Hutchinson Papers Correspondence, etc.

7. Records and Correspondence of the Commissioners on the part of England to negotiate the Treaty of Peace, together with a complete transcript of Oswald's Journal, the original of which is in the Lansdowne Collection.

8. The Craven Street Letter Book, containing the drafts of important letters written by Franklin during his residence in London (1765–1775).

The originals of many of the letters and articles published by W. T. Franklin are missing from this collection. It is impossible to determine their fate. They may have been lost in the obscure years between 1823 and 1840, when we

have no records of the straits of fortune into which they were driven, or they may have been used by Temple Franklin as "printer's copy."

Not all of Franklin's papers came to The American Philosophical Society. After the bulk of them had been delivered a portion still remained for many years in a garret over the stable at Champlost, the home of the Fox family. Miss Fox, who took small interest in the papers, determined to sell them to the paper mills in order to secure a new carpet for the kitchen. About 1862 Mrs. Holbrook, who lived in Bradford County, Pennsylvania, was visiting Miss Fox and saw these papers carried out. She remonstrated, and they were brought back into the house — all but one unlucky barrel which had already gone to the mill. Miss Fox selected a number of her own family letters and gave the rest — a generous trunk full — to Mrs. Holbrook. From her they descended to her son George O. Holbrook, from whom they were purchased in 1903, through the efforts of Dr. S. Weir Mitchell, and deposited in the Library of the University of Pennsylvania.

This collection, which no editor of Franklin or student of American history has hitherto examined, consists of more than 800 documents, ranging from Franklin's draft of an essay on the British plantations in America, in 1731, down to his latest correspondence. There is much whiff and wind of the controversy with the Proprietary Government; maps of the Gulf Stream and of Bunker Hill; Franklin's personal accounts of his household in Paris and with Congress; numerous documents in the affair of Paul Jones and Captain Landais; and holograph letters from Washington, Lafayette, Jefferson, Wayne, Whitefield,

Francis Hopkinson, Robert Morris, and the Presidents of Congress.

The bulk of the correspondence between Franklin and Sir Joseph Banks concerning aërial navigation is here; and further interchange of scientific opinion is found between Franklin and Priestley in England, and La Blancherie and Le Roy in France. Letters are here from Turin, Padua, and Orleans, soliciting Franklin ("plus grand philosophe du Siècle") to honour them by accepting membership in their learned societies. Not least interesting in the collection are two letters from Robespierre and Burke: the former, an appeal "to the most illustrious savant of the world," to coach the writer, then a humble advocate, that he might intelligently argue the question of the legality of lightning rods; the latter, the original of an already published letter relating to the parole of General Burgoyne.

These three collections contain nearly all the Franklin papers that are now known to exist. The remainder are widely scattered over the face of the earth. Of the minor American collections the most important is that in the possession of the Pennsylvania Historical Society. Distributed through the various autograph collections of the society, those that bear the names of Dreer, Conarroe, Peters, Coryell, and Sprague, are upward of 50 autograph letters of Benjamin Franklin. The other Franklin papers are found in four folio volumes containing 400 documents, and in two bundles of manuscripts containing 260 documents. This collection contains a large number of letters from Thomas Digges, conveying secret intelligence from London; they are variously signed: T. Digges, T. D., Arthur Hamilton, Robert Sinclair, P. Drouillard (12 letters), Will-

iam Forbes, William Ross, William Ferguson, W. S. Church (19 letters), Alexander McKinloch, Alexander Brett, John Thompson, William Fitzpatrick, and Moses Young.

In Europe, Franklin letters are preserved in Paris at the Foreign Office, le Bibliothèque du Ministère de la Marine, in the Bibliothèque Nationale, and the Archives Nationales; in Spain at Simancos; in Holland at the Hague; and in England at the Public Record Office, the British Museum, King's College, Cambridge, Lansdowne House, and the Royal Society. All the papers in the public collections of Europe are now chronicled in the colossal Index to the American Documents in the Archives of Europe. This vast undertaking of the late B. F. Stevens is at last completed, and bound in 180 sumptuous folios. It indexes 161,000 public documents. It was carried forward and completed at immense expense, and supplies a sure and easy clew to the bewildering mazes of the enormous official collections of the Old World. At present it is contained in an upper room of No. 4, Trafalgar Square, where it awaits a purchaser, and is comparatively inaccessible to students. The admirably classified collection of state papers belonging to the Foreign Office, located upon the Quai d'Orsay, in Paris, contains 137 letters in the handwriting of Franklin and 123 letters addressed to him. Of these, 85 were written by Franklin to Comte de Vergennes, and 79 were addressed by that minister to Franklin.

The Bibliothèque de la Marine has 11 letters in Franklin's hand.

The Public Record Office, in Chancery Lane, London, has 57 letters in the handwriting of Franklin, and 22 letters addressed to him. Very interesting is a volume labelled

Letters of Dr. Franklin and Others, 1768–1775" (P. R. O. ... W. I., 684), on the first page of which the following "Observation" is written: "Thirteen (genuine) Letters of Dr. Franklin. These letters are perhaps now only precious or important so far as they prove and discover the Duplicity, ingratitude, and Guilt of this Arch Traitor whom they unveil and really unmask Displaying him as an accomplish'd Proficient in the blacker Arts of Dissimulation and Guile."

The British Museum had, in the summer of 1904, 35 original letters by Franklin, and 14 letters addressed to him. The most interesting part of this collection is a volume belonging to the King's Library (K. 203), containing the correspondence of Franklin with Dr. Samuel Cooper and Thomas Pownall. After the battle of Lexington, and when Boston was surrounded, Dr. Cooper applied for permission to leave the city. He obtained a passport. Unwilling to destroy the originals of these letters, he left them with a friend, Mr. Jeffries, who was ill and who soon after went to the country. His son, Dr. John Jeffries, refused to accompany his father, and the trunk containing the correspondence was left with him. He took it to Halifax and to London in 1778, and presented the papers to Benjamin Thompson (Count Rumford), who gave them to Lord George Germaine for his Majesty. Dr. Jeffries's Diary was saved from the fire that destroyed his mansion house in Franklin Street, Boston, in 1820. Dr. B. Joy Jeffries writes: "In my grandfather's Diary, June 24, 1779, he records a long interview with Germaine concerning his own affairs, and Germaine saying he had read these letters with great interest."

The Lansdowne Collection has 22 letters written by

Franklin. The present whereabouts of many other documents is revealed by the various reports of the Historical Manuscripts Commission.

It is an impossible task to discover and catalogue the widely scattered Franklin papers. They appear in the remotest and most unexpected places. There is scarcely a family in France that was prominent in the eighteenth century that does not preserve and cherish certain Franklin letters. A library in Cremona, Italy, is proud of a letter from Franklin to Lorenzo Manini, one of the founders of the Cisalpine Republic. The traveller in Russia and Lithuania who carries Franklin in his mind comes upon letters written in that familiar hand. Across the entire eighteenth century his shadow falls, and all its paths are haunted by his presence.

THE PRINTED EDITIONS

Franklin wrote much, but always with a present and practical purpose. He was the best American writer, a master of plain and vigorous English, but he had no aspirations after literary distinction. Industrious and frugal in all the affairs of life, exercising a scanty and penurious household economy that savoured of parsimony, seeking along busy avenues of trade to acquire a competent fortune, that he might be independent and enjoy profitable leisure, it is significantly characteristic of him that he never applied either for patent-right or copyright. Such were his ingenuity, quickness of observation, and fertility of invention, that he might daily have conceived projects and contrived devices that would have added to his fortune and renown, yet he

declined Governor Thomas's offer to give him a patent for the "sole vending" of the Pennsylvania fireplaces, saying "That as we enjoy great advantages from the inventions of others, we should be glad of an opportunity to serve others by an invention of ours; and this we should do freely and generously." Le Roy said to him, "Like Charles XII and other conquerors you only seize empires to give them to others." In the same spirit he wrote out his ideas upon philosophy and political economy, and sent them in letters to his friends, who might, if they chose, put them to public use by publishing them as pamphlets or contributing them to the proceedings of learned societies. He sent nothing to the press over his own name. But for the scientific enthusiasm of Peter Collinson, and the personal devotion of Dubourg and Vaughan, his name would not have been known to the academies and philosophers of Europe. He lived with the pen in his hand; he sent forth from Craven Street and from Passy masterpieces of irony and keen political satire; he discomfited the ablest controversialists of England, and won the attentive ear of Europe. It has been well said that he is easily first among the giant race of pamphleteers and essayists, most of whom went before, but a few of whom came immediately after, the war for independence. All of this flood of powerful polemic, however, was anonymously written, and for the most part in haste and without revision.

His indifference to literary fame is not alone sufficient to explain the singular circumstance that he rarely saw a proof-sheet of any of his writings. His abhorrence of controversy must be remembered. "I have never," he wrote, "entered into any controversy in defense of my philo-

sophical opinions; I leave them to take their chance in the world. If they are *right*, truth and experience will support them; if *wrong*, they ought to be refuted and rejected. Disputes are apt to sour one's temper and disturb one's quiet. I have no private interest in the reception of my inventions by the world, having never made, nor proposed to make, the least profit by any of them." He saw that by public altercations over scientific questions, the ignorant are diverted at the expense of the learned. He wrote to Ingenhousz, when that irate philosopher was engaged in a dispute with Priestley: "I hope you will omit the polemic piece in your French edition and take no public notice of the improper behaviour of your friend; but go on with your excellent experiments, produce facts, improve science, and do good to mankind. Reputation will follow, and the little injustices of contemporary labourers will be forgotten; my example may encourage you, or else I should not mention it. You know, that when my papers were first published, the Abbé Nollet, then high in reputation, attacked them in a book of letters. An answer was expected from me, but I made none to that book, nor to any other. They are now all neglected, and the truth seems to be established. You can always employ your time better than in polemics." To the same correspondent he wrote: "Whatever some may think and say, it is worth while to do men good, for the self-satisfaction one has in the reflection."

Franklin lacked constructive ability. His mind teemed with invention, and his observation was astonishingly quick and accurate, but he had not, apparently, the power of patiently coördinating and symmetrizing his thought. His Autobiography is his only book, and upon that he wrought

rom time to time for many years, and left the work unnished when he died. His literary and scientific brohures, therefore, are chiefly letters written to friends who vere prominent in science or affairs, and who, impressed by the general and permanent value of the writings, sought o have the world share in their pleasure and instruction. There is probably no parallel in the history of literature to he publication of works of such variety, value, and enduring ame in such modest and unpretentious manner.

The first collection was made in 1751: "Experiments and Observations on Electricity, made at Philadelphia in America, By Mr. Benjamin Franklin, London: E. Cave, 1751. 4°." It was a pamphlet of 86 pages, given to the press by Peter Collinson, and sold for half a crown. Collinson was a scientist "very curious in botany and other branches of natural history" (F.). He was the close friend of John Bartram, and the intermediary between him and the King. The firm of mercers with which he was connected had business relations with America, and so Collinson became acquainted with men of intellect in the colonies, and urged the Americans to the cultivation of flax, hemp, silk, and wine. He was a fellow of the Royal Society, and one of the founders of the Society of Antiquaries. After four years' correspondence with Franklin upon electricity, he published some of the letters without consultation with Franklin, assigning as his reason the great interest of the letters and their importance to the public.[1] The pamphlet

[1] "It may be necessary to acquaint the reader, that the following observations and experiments were not drawn up with a view to their being made publick, but were communicated at different times, and most of them in letters wrote on various topicks, as matters only of private amusement.

"But some persons to whom they were read, and who had themselves

was again printed with additional matter in 1753: "Supplemental Experiments and Observations on Electricity, Part II. made at Philadelphia in America, By Benjamin Franklin, Esq., and communicated in several Letters to P. Collinson, Esq. of London, F.R.S. London: E. Cave, 1753, 4°" (second edition 1754). Part I was reprinted in a third edition in 1760; and Part II, third edition, 1762.

The letters and essays were now well known in Europe. Buffon had read them in a stumbling translation, and had prevailed upon Dalibard to render them more faithfully into French. Louis XV witnessed the performance of the electrical experiments at St. Germain, and bestowed royal applause upon Franklin. The name of the American philosopher was now spoken with curiosity in nearly every part of the continent, though Abbé Nollet, "Who had form'd and publish'd a theory of electricity," declared that no such person existed. As yet the writings had not been gathered into a book. But in 1769 a single quarto volume appeared in London with the title: "Experiments and Observations on Electricity, made at Philadelphia in America, by Benjamin Franklin, LL.D. and F.R.S. To which are added Letters and Papers on Philosophical Subjects. The whole corrected, methodized, improved, and now first collected into one Volume, and illustrated with copperplates. London: David Henry, 1769," plates iv, 496 pp. and Index, old calf, 4°.

Collinson had died nine months before, on the 11th of

been conversant in electrical disquisitions, were of opinion, they contained so many curious and interesting particulars relative to this affair, that it would be doing a kind of injustice to the publick, to confine them solely to the limits of a private acquaintance." — Preface to "Experiments and Observations," London, 1751.

August, 1768; Franklin was much occupied with colonial affairs which distracted his attention from scientific inquiry. Even his son, William Franklin, was amazed at his father's many interests and activities, and wrote to him (March 2, 1769): "A new edition of your Experiments is advertised, with corrections and additions which I long much to see. It is surprising how you could find time to attend to things of that nature [amid] your hurry of public business, and variety of other Engagements."

Various translations were made of this volume, but none of real importance until Franklin's devoted friend, Barbeu Dubourg, took it up in 1772. Dubourg was a member of the Royal Society of Medicine, the Royal Society of Montpellier, the Medical Society of London, and the Academy of Sciences of Stockholm. He was born at Mayenne, February 12, 1709. He had, like his brothers, studied theology, and abandoned it for the practice of medicine. He was a notable linguist, and had already translated Bolingbroke into French. His colleague, Le Roy, had promised to translate Franklin's volume, but he had made no progress in it. Dubourg declared to Franklin that he feared to undertake it himself, lest he should spoil the essays with his unskilful hand. Lesqui, a *Prémontré*, had made a translation but had mislaid it. Dubourg importuned him unceasingly for it. Meanwhile he proceeded with the work, frequently consulting Franklin as to the meaning of English words and phrases. "What are 'orreries'?" he asks; and he would know the French equivalent for "surf" and "spray" and "jostled" (October 28, 1772).

The work appeared in 1773: "Œuvres de M. Franklin, Docteur ès Loix, Traduites de l'Anglois sur la quatrieme

édition. Par M. Barbeu Dubourg, avec des additions nouvelles et des Figures en Taille douce. · Paris, 1773." In it were included some letters written later than the London edition of 1769, and the "Way to Wealth" translated under the title "Le Moyen de s'Enrichir, Enseigné clairemont dans la Préface d'un Vieil Almanach de Pensylvanie, intitulé Le Pauvre Henri à son aise."

The translation was well received; Dubourg and Marquis de Mirabeau and M. Dalibard sent Franklin a thousand compliments, and Dubourg, in a letter to his friend and master (December 29, 1773), declared that nothing he had ever written had been so well received as his preface to these works, — "So great is the advantage of soaring in the shadow of Franklin's wings!"

Among Franklin's friends and correspondents in England, Benjamin Vaughan was preëminently dear. He was the son of a West Indian planter and well connected upon both sides of the sea. He had been introduced by Horne Tooke to Lord Shelburne, and had become private secretary to that statesman. He married Sarah Manning, aunt of the late Cardinal Manning, and his family were connected with the house of Bedford. His letters to Franklin are highly valuable for their reflection of political sentiment in England and their apt criticism of public men and measures. In 1779 Vaughan prepared with much care a new edition of Franklin's writings. He took great trouble to find all of his friend's flying leaves and obscurer pamphlets, and published them with judicious notes, and an attentive eye to the proofs. The following letter explains the way in which Vaughan proceeded with his self-imposed task.

"LONDON April 9th 1779

"MY DEAREST SIR

"By this conveyance you will receive a printed pacquet of your papers; and inclosed you will receive what is finished in addition. The last proof sheet comes down to p. 230. I believe in the whole, there will be from 450 to 500 pages; exclusive of index, table of contents, and two or three pages of *explanatory* preface.

"I have taken sundry liberties with you; but *I* only shall be the sufferer, for I shall in the fullest possible manner get *your* judgment out of the scrape. Italics are put in many places, to serve instead of marking the subject (as in some authors is done) on the *side of the page;* and to prevent an *English* reader running away with a blunder for want of attending to a *particular word* which would have saved his blunder. The pointing is altered very frequently, your original pointing not being always to be got at, to make the whole uniform. The whole secret of these alterations lies in throwing the sentences into masses and members to assist the eye more suddenly in catching and reviewing the sense; and in making abrupt pauses in particular places for the sake of forcing the reader's attention to some particular point, either on account of its importance or as being otherwise equivocal.

"Paragraphs and spaces are used with the same sort of license; especially in the Canada pamphlet and the House of Commons Examination. With what is done to these two pieces I think you will hardly be displeased: on the former I bestowed much trouble. The writings of very few authors besides yourself, will bear distinguishing into heads. But I

think by making the piece more luminous as to the parts, I have only done you infinitely more credit.

"However you may be sure of this; that no sort of mercy will be shewn by the editor to *himself*. The two or three first sheets have been blundered about; not having enough attended to the subject, or the printer. Mr. Jackson in particular is very ill-used, and will have a public and private apology made to him. However with your permission, I wish that the alterations I have minuted down may be attended to with you *if not improper;* and that it may be expressed in the French translation that what is altered, is at the desire of the *English editor.*"

The work was published in July, 1779, with the title: "Political, Miscellaneous and Philosophical Pieces; Written by Benj. Franklin LL.D. and F.R.S., now first collected, with Explanatory Plates, Notes, and an Index to the whole, London: J. Johnson, 1779." When all was ready, Vaughan wrote to Franklin:—

"JUNE 17. 1779

"MY VERY DEAREST SIR

"In about 3 weeks time I hope to send you everything complete, relative to a certain collection. There will be an engraving of the head of the party, taken from the larger medallion, of which you sent a miniature size to Miss G. S.[1] The motto, given by her father at my request, is, 'His country's friend, but more of human kind.' I wanted something that should answer to 'complectitur orbem'; which this does only in one sense of 'complectitur': however it is infinitely the more important sense, and that which will most please you; and I like it too the

[1] Miss Georgiana Shipley.

›etter, as it will look with *some* like making friends with ;ngland; which kind of incidents I always take in. The .bove stands round the *engraving;* in the *title page* you :now comes, '*hominum* rerumque repertor,' from Virgil.[1] We have got the preface to G.'s[2] speech, all but the *epitaph;* vhich is promised me, as I suppose from Mr. Wharton, and s much wanted. My negligence in not asking for this in good *time,* as I thought it might be had at *any* time, is incon-venient to us a little, as to G. himself. I have not yet been ible to see him; but I shall probably see him to day, as his :xamination I believe continues to day at the house. He nswered almost every single question of Lord G. G.'s,[3] in he affirmative. He said that at the taking up arms, only $\frac{1}{5}$ were for independence; but that the party had *begun* in the :hief towns, ever since 1754, for in order to abuse the Howe's 'or not quelling the revolt, they seem to consent to acknowl-:dge that. But it is impossible to go into the particulars of vhat he said, they were so very multiplied but it turned out, hat in fact your people had 'recruited' at *least* on as good :erms as ours, whether in America or even almost in Eng-and; and that your bounty money for 'substitutes' as it vas called was less than the Liverpool and Manchester ›eople gave for *their* regiments in many instances."

In his preface Mr. Vaughan said:—

"The times appear not ripe enough for the editor to give :xpression to the affection, gratitude and veneration he bears o a writer he has so intimately studied: Nor is it wanting o the author; as history lies in wait for him, and the judg-

[1] Æneid, xii. B.

[2] Speech of Joseph Galloway, to which Franklin wrote a preface.

[3] Lord George Germaine.

ment of mankind balances already in his favour. The editor wishes only that other readers may reap that improvement from his productions which he conceives they have rendered to himself. Yet perhaps he may be excused for stating one opinion: He conceives that no man ever made larger or bolder guesses than Dr. Franklin from like materials in politics and philosophy, which, after the scrutiny of events and facts, have been more completely verified. Can *Englishmen* read these things and not sigh at recollecting that the *country* which could produce their author, was once without controversy *their own!* Yet he who praises Dr. Franklin for mere *ability*, praises him for that quality of his mind, which stands lowest in his own esteem. Reader, whoever you are and how much soever you think you hate him, know that this great man loves *you* enough to wish to do you good: His country's friend, but *more* of human kind."

It was in this spirit of reverence and affection that Vaughan approached and completed his task of discovering and preserving the stray papers of his venerable friend, "qui porté toujours des lunettes sur ses yeux et des royames sur ses epaules."[1]

No further collections appeared during Franklin's lifetime, but numerous translations of individual essays extended his fame upon the continent. Ingenhousz and Beccaria translated some of his works into Latin; Baron Vernazza (1766) and Charles Joseph Campi (1774) into Italian; and Wenzel, a student of physics, translated the works, from the French of Dubourg, into German and they were published by Walther, Librarian of the Court of Dresden.[2]

[1] B. Vaughan to M. de Chaumont, July, 1778.

[2] "Des Herrn D. Benjamin Franklin's Sämmtliche Werke aus dem Eng-

Eleven months after Franklin's death a biography appeared in Paris: "Mémoires de la vie privée de Benjamin Franklin, êcrits par luimême, et adressés a son fils; Suivis d'un Précis historique de sa Vie politique, et de plusieurs Pièce, relatives à ce Père de la Liberté, Paris, Buisson, 1791." It was the first appearance of that extraordinary autobiography, a work of vast and enduring fame, and destined to a strange literary history. Franklin had begun the story of his life while visiting Jonathan Shipley, the good Bishop of St. Asaph, at Chilbolton, by Twyford, in 1771. The manuscript travelled back to Philadelphia with Franklin in 1775. It was left with other papers in the keeping of Mr. Galloway when, eighteen months later, Franklin returned to England; and it shared the fate of those papers when violent hands were laid upon the chest, and its contents were trodden under hostile feet. Twenty-three pages of closely written manuscript fell into the hands of Abel James, an old friend, who found, to his great joy, that they contained an account of Franklin's life ending with the year 1730. He sent a copy of it to Franklin with an earnest petition that he would finish the work. This was in 1782. Franklin sent the copy to Benjamin Vaughan, who gave him many and potential reasons for completing it, saying "it will be worth all Plutarch's Lives put together." The Shipleys and Le Veillard added their voices in earnest solicitation that the work might not cease. When he left Europe in 1785 he assured his friends that he would solace the tedium of the homeward voyage with the resumption of this per-

lischen und Französischen übersetzt nebst des französischen übersetzers, des Herrn Barbey Dubourg, Zusätzen und mit einigen Anmerkungen versehen, von G. T. Wenzel. Dresden 1780."

sonal narrative. Catherine Shipley wrote to him after she had taken leave of him upon the deck of his ship: "We never walk in the garden without seeing Dr. Franklin's room and thinking of the work that was begun in it. I have sincerely wished you a good voyage but since the completion of that work depends on its length I cannot wish it may be short."

He was oppressed with age and physical infirmity. Gout and gravel racked him. Political service still was required of him. "The Public," he said, "had had the eating of his flesh, and now seemed resolved to pick his bones." The work went forward slowly, and stopped at last at the year 1757. Copies were sent to M. le Veillard and Rochefoucauld-Liancourt at Paris, and to Dr. Price and Benjamin Vaughan in England.

Immediately upon his grandfather's death William Temple Franklin wrote to M. le Veillard, claiming the manuscript of the Autobiography and asking that it be shown to no one save perhaps some member of the *Académie*, who should be appointed to prepare an *éloge*. How Buisson the publisher came by the manuscript from which his translation was made is an impenetrable mystery which he declined to explain. The translator, who is identified by the "Nouvelle Biographie Générale" as Dr. Jacques Gibelin, "médecin, naturaliste, et traducteur français," said he had a copy of the original manuscript, but he would not enter into the details of how it came into his hands. Lest, however, it might be thought that the original did not exist, he would agree to print it in the original language if those who were curious to see it would inscribe their names at M. Buisson's shop, No. 20, rue Haute-feuille. As soon as four

hundred subscribers were obtained at 48 sols each the work would be published. Evidently there were not four hundred of the curious, and the work in its original form did not appear.

M. le Veillard wrote to the *Journal de Paris* (March 21, 1791) denying any knowledge of Buisson's transaction. He had no connection with the translation, and was quite ignorant of its source. It brought the story of the life down to 1731; the copy in Le Veillard's possession was complete to 1757.

Clumsily and carelessly translated, imperfect and unfinished, it was nevertheless eagerly read and hurriedly rendered into other languages. In 1792 it was done into German by Gottfried August Bürger, and published in Berlin.[1] In 1793 two English editions appeared: the first by Robinson,[2] "the king of booksellers," who, in the same year was fined for selling "The Rights of Man." Dr. Price was the editor, and the text, although translated from the French, was cleared of the French translator's blunders, and the language, as the editor said, made to conform more to the idiom of Franklin. Here, too, the Autobiography was pieced out beyond the terminal year, 1731, by a reprint of the Life of Franklin contributed by Dr. Stuber to the *Columbian Magazine* (1790–1791).

The other English edition, "The Private Life of the late Benjamin Franklin, LL.D. London, J. Parsons, 1793."

[1] "Benjamin Franklin's Jugendjahre, von ihm selbst sur seinen Sohn beschrieben und übersetzt von G. A. Bürger. Berlin: H. A. Rottmann, 1792."

[2] "Works of the late Doctor Benjamin Franklin: consisting of his Life written by himself, together with Essays, humorous, moral and literary. Chiefly in the manner of the Spectator. London: G. C. J. & J. Robinson 1793."

was also a retranslation from the French, but different from Robinson's version, and far inferior to it. Ignorance and pompous pretension burden its pages. The Frenchman had translated Franklin's juvenile ballad, "The Lighthouse Tragedy," being an account of the drowning of Captain Worthilake, as "La Tragédie du Phare." Parsons's translator converted it into "The Tragedy of Pharaoh"!

In 1794 the Autobiography appeared in German, at Weimar, translated from Robinson's edition: "Benjamin Franklin's Kleine Schriften, nebst seinem Leben, aus dem Englischen, von G. Schatz: Weimar 1794." The translator dates his preface "Gotha, April 20, 1794." His work is on the whole well done, very well done when we reflect how far it is from the original, being removed from it by three successive stages of translation.

A new version appeared in Paris in 1798, "Vie de Benjamin Franklin, écrite par lui-même, suivie de ses Œuvres morales, politiques et littéraires, dont la plus grand partie n'avoit pas encore été publiée. Traduit de l'Anglais, avec des Notes, par J. Castéra. Paris, chez F. Buisson, An VI. de la République [1798].

The Autobiography is here freshly translated from Robinson's rendering of the anonymous (Gibelin?) French translation of the English original. Castéra added, however, some things from French sources, and gave most of the second part of the Autobiography which was not to appear in English until 1818. In his preface Castéra regretted "not having had all the Memoirs which go, it is said, to 1757." He added, "It is not known why M. Benjamin Franklin Bache [W. T. Franklin] who has them in his possession and is now residing in London, keeps them so long from the public.

The works of a great man belong less to his heirs than to the human race."

The next publication of the "Works" was in London in 1806: "The Complete Works in Philosophy, Politics and Morals, of the late Dr. Benjamin Franklin now first collected and arranged: with Memoirs of his early Life written by himself, in 3 vols, London, J. Johnson and Longman 1806." A certain Mr. Marshall was the editor, and Benjamin Vaughan is believed to have lent assistance to him. By this time curiosity was rife as to what had become of Franklin's papers, and why the edition of the works that had been promised by William Temple Franklin had not appeared. The *National Intelligencer* of Washington asserted that some grave dishonesty was the cause of the delay. It was hinted that Temple Franklin had parted with his copyrights to a London publisher who had been bought by the British Government to suppress the publication.

In the preface to the 1806 edition (dated April 7, 1806), the editor repeats the charge: "The proprietor [W. T. Franklin], it seems, had found a bidder of a different description in some emissary of government, whose object was to withhold the manuscripts from the world, not to benefit it by their publication, and they either passed into other hands, or the person to whom they were bequeathed received a remuneration for suppressing them." The *Edinburgh Review*, in July of that year, published an excellent article upon this edition and incidentally upon Franklin's mental characteristics and literary style. The reviewer, who was Francis Jeffrey, said: "Nothing, we think, can show more clearly the singular want of literary enterprise

or activity in the States of America than that no one has yet been found in that flourishing republic to collect and publish the works of their only philosopher. It is not even very creditable to the literary curiosity of the English public that there should have been no complete edition of the writings of Dr. Franklin till the year 1806; and we should have been altogether unable to account for the imperfect and unsatisfactory manner in which the work has now been performed, if it had not been for a statement in a prefatory advertisement, which removes all blame from the editor to attach it to a higher quarter. . . . If this statement be correct, we have no hesitation in saying that no emissary of government was ever employed on a more miserable and unworthy service. It is ludicrous to talk of the danger of disclosing, in 1795, any secrets of State with regard to the War of American Independence; and as to any anecdotes or observations that might give offense to individuals we think it should always be remembered that public functionaries are the property of the public, that their character belongs to history and to posterity, and that it is equally absurd and discreditable to think of *suppressing* any part of the evidence by which their merits must be ultimately determined. But the whole of the works that have been suppressed certainly did not relate to republican politics. The history of the author's life, down to 1757, could not well contain any matter of offense, and a variety of general remarks and speculations which he is understood to have left behind him might have been permitted to see the light, though his diplomatic operations had been interdicted. The emissary of government, however, probably took no care of these things: he was resolved to leave no rubs and

botches in his work, and, to stifle the dreaded revelation, he thought the best way was to strangle all the innocents in the vicinage."

Two months more (September, 1806) and an American newspaper, *The American Citizen*, published by James Cheetham at New York, joined the comminatory chorus. W. T. Franklin, it said, "without shame and without remorse, mean and mercenary, has sold the sacred *deposit* committed to his care by Dr. Franklin to the British government. Franklin's works are lost to the world forever."

Temple Franklin made no reply to these attacks until, on the 28th of March, 1807, he observed in the *Argus or London Review*, published at Paris, a reprint of *The American Citizen's* article. He then wrote to the editor a letter which was published in full in the *Argus* (March 31, 1807), and was characterized as "a full and satisfactory answer to the calumnies circulated on his conduct." He branded as "atrociously false" the assertion "boldly and shamefully" made that he had sold his grandfather's manuscripts "or any part of them, to the British Government, or their agents, to suppress the publication of the whole or any part thereof." He explained that the papers had been left to him to be published *in his discretion*, and that the original manuscripts with the copy prepared for the press were still "under lock and key in the secure vaults of my bankers, Herries, Farquhar, & Co. London."

Years slipped away while Temple Franklin was still scissoring, sorting, shifting, and pasting the heaps of his grandfather's papers. He sighed and despaired over the task, and met with frequent rebuffs from publishers, who told him that it was no time, with Europe in political tumult.

to undertake great and costly publications. A contract was finally made with Henry Colburn. A clerk, accustomed to the performance of a day's work, brought a semblance of order out of Franklin's sad confusion. And the works were published twenty-seven years after Temple Franklin had first advertised for his grandfather's lost papers. The edition was limited to 750 copies. It was in six volumes (1817–1819), with another edition in three volumes quarto (1818). Colburn assumed all the expenses and risks and took one-third of the profits. Franklin made £1473 out of the transaction.

These volumes were immediately translated, by Charles Malo, and printed in Paris.

In 1828 a fourth translation of the Autobiography appeared in Paris.[1] It was published by Jules Renouard; it was based upon the original Franklin manuscript and contained the final pages which were never to appear in English until Mr. John Bigelow issued his reprint of the Veillard manuscript. To complete what seems an almost endless list a fifth translation of the Autobiography by Laboulaye (1866) must be mentioned.

Temple Franklin's edition of the works remained the standard authority until Jared Sparks began his vast labour of examining all the documents that were accessible to him and assembling them in ten volumes, constituting what Dr. Sparks believed to be a complete collection of the writings of Franklin (1836–1842). Sparks was a man of untiring industry, of genuine enthusiasm and zeal, and he deserves

[1] "Mémoires sur la Vie de Benjamin Franklin. Écrits par lui-même, traduction nouvelle. Paris: Jules Renouard, 1828." The editor obtained the Veillard manuscript from M. de Senarmont. — ED.

e gratitude of all students of the records of American his-
ry. Yet he possessed all the faults of the eighteenth-cen-
ry and early nineteenth-century editor. He committed
ts of vandalism upon the papers he was permitted to
amine. He wilfully altered the language of letters when
e was displeased by the phraseology or offended by the
ntiment expressed. For reverence to some alive he soft-
ned the asperities of criticism and smoothed the speeches of
ose who transgressed the limits of decency and decorum.
When it is said of Benedict Arnold that "He seems to mix
s naturally with that polluted court [England] as pitch with
ar," Sparks omits the sentence, but as usual gives not the
lightest intimation that he has not exactly copied the letter.
'George III's character for falsehood and dissimulation"
s with nice surgical skill cut out of the context and thrown
o dexterously away that only a careful collation with the
riginal document will detect the loss. When Franklin
peaks of "the cruel injuries *wantonly* done us by burn-
ng our towns," Sparks substitutes the word *constantly*, and
masculates the sentence.

He is nice in his use of moral epithets; he will not offend
ne stomach with his choice of words. Franklin speaks
f the Scots "who entered England and *trampled on its belly*
s far as Derby,"—"marched on," says Sparks. Franklin
s sending some household articles from London to Phila-
lelphia. In the large packing case is "a jug for beer."
t has, he says, "the coffee cups *in its belly*." Sparks per-
orms the same abdominal operation here. In the corre-
pondence with Jared Eliot upon agriculture Sparks always
hanges "dung" to "manure." "Mr. Laurens," it is said,
is ill *of a lax*, much emaciated and very much invective."

In Sparks's English he "is sick with *a cholera* . . . and very much *incensed.*"

Livingston wrote to Lafayette "you will be charmed to see our countrymen well dressed, since you used to admire them even in their *naked beauties.*" In Sparks the line concludes "even in their rags." Incredible as it seems, Sparks sometimes makes more than thirty alterations in a single letter.

The purchase by the United States of the Stevens collection of Franklin papers prompted Mr. John Bigelow to attempt another complete edition of Franklin's works and correspondence (1887). No one was more competent than Mr. Bigelow to perform such a task. He had lived long and variously in the world. He was thoroughly familiar with the character and public career of Franklin, and he was widely read in the literature of the eighteenth century. He possessed also the original manuscript of the Autobiography, by means of which he had been able to correct more than twelve hundred errors in William Temple Franklin's version.

In concluding this bibliographical history I am tempted to return a moment to the romantic adventures of Franklin's Autobiography, and to repeat the singular history of that famous book. Five times it appeared in France in five distinct and different translations. Four times it appeared in English in four different texts, each differing from the other in almost every line. A manuscript copy of the work was made by Benjamin Franklin Bache, then aged twenty, in 1789, and sent by his grandfather's direction to M. le Veillard. That gentleman was condemned to the guillotine, June 15, 1794 (ætat. 61). The copy of the Autobiography remained in the family, a valued possession.

William Temple Franklin offered the original manuscript in Franklin's hand in exchange for this copy, thinking perhaps that Bache's copy would make clearer "copy" for the printer. In this way a daughter of Le Veillard came into possession of the original manuscript. She died in 1834 and the manuscript went to her cousin M. de Senarmont, whose grandson sold it, January 26, 1867, to Mr. John Bigelow. It is now owned by Mr. E. D. Church, of New York.

THE WORKS OF FRANKLIN

Sydney Smith said to his daughter, "I will disinherit you, if you do not admire everything written by Franklin." There was much sound wisdom in this merry menace. The literature of the world might be searched in vain for the works of another author who should exhibit such variety of theme, fertility of thought, and excellence of style.

A master of political strategy, bearing upon his shoulders the burdens of a struggling country, he yet entered with easy familiarity into the discussion of every subject of philosophical inquiry known to the eighteenth century. Natural philosophy, politics and political economy, general literature and morals, are treated by him with unparalleled simplicity and facility. Talleyrand told Greville that Franklin was remarkable in conversation because of his simplicity and the evident strength of his mind. Simplicity is also the chief characteristic of his literary style. Francis Jeffrey said of his philosophical writings that "the most ingenious and profound explanations are suggested as if they were the most natural and obvious way of accounting for the phenomena." His astonishing prescience, power of generaliza-

tion, and force and clarity of expression insured a wide circulation and prompt acceptance for his opinions and conclusions. Peter Collinson sent a Leyden jar to the Library Company of Philadelphia. Franklin experimented with it, and in five years was acknowledged the first authority in the world upon electrical theory. He visited the laboratory of Lavoisier and corresponded with Priestley and Cavendish, caught the full significance of their ideas of the nature of heat and matter, and expressed it in a manner so simple and convincing that his language has reappeared in text-books from generation to generation. He wrote upon contagious colds and the "colica pictonum" with such easy mastery that he was invited to accept membership in the medical societies of Paris and London. Again to quote Jeffrey, whose essay in the *Edinburgh Review* (July, 1806) is one of the best ever written about Franklin: "He engaged in every interesting inquiry that suggested itself to him, rather as the necessary exercise of a powerful and active mind than as a task which he had bound himself to perform. He cast a quick and penetrating glance over the facts and the data that were presented to him, and drew his conclusions with a rapidity and precision that have not often been equalled."

In his Autobiography, Franklin declared that his ability in prose writing had been a principal means of his advancement in life, and he related the means by which he became, as he says, "a tolerable English writer." When a boy of thirteen or fourteen, passionately fond of books, he chanced upon an odd volume of the *Spectator*. It was the third. He bought it, read it over and over, and was delighted with it. At that moment began his apprenticeship to Addison. The

manner in which he played "the sedulous ape" to that great master, he has described in his own inimitably simple way.

"I thought the writing excellent, and wished, if possible, to imitate it. With this view I took some of the papers, and, making short hints of the sentiment in each sentence, laid them by a few days, and then, without looking at the book, tried to complete the papers again, by expressing each hinted sentiment at length, and as fully as it had been expressed before, in any suitable words that should come to hand. Then I compared my *Spectator* with the original, discovered some of my faults, and corrected them. But I found I wanted a stock of words, or a readiness in recollecting and using them, which I thought I should have acquired before that time if I had gone on making verses; since the continual occasion for words of the same import, but of different length, to suit the measure, or of different sound for the rhyme, would have laid me under a constant necessity of searching for variety, and also have tended to fix that variety in my mind, and make me master of it. Therefore I took some of the tales and turned them into verse; and, after a time, when I had pretty well forgotten the prose, turned them back again. I also sometimes jumbled my collections of hints into confusion, and after some weeks endeavoured to reduce them into the best order, before I began to form the full sentences and complete the paper. This was to teach me method in the arrangement of thoughts. By comparing my work afterwards with the original, I discovered many faults and amended them; but I sometimes had the pleasure of fancying that, in certain particulars of small import, I had been lucky enough to improve the method or the language."

Addison, Bunyan, and Defoe were his masters and his models in the difficult art of expression. His early contributions to the *New England Courant* and the *American Weekly Mercury* were imitations of Addison; and his Silence Dogood, Alice Addertongue, Anthony Afterwit, Celia Single, Patience Teacroft, and other alliterative and indicative names have the personality of the characters that come and go in the *Spectator*, with much of their sprightly wit and gentle satire.

His first collection of books was of John Bunyan's works, in separate little volumes, and the influence of Bunyan is perceptible in the numerous parables, moral allegories, apologues, etc., which, at all periods of his life, he delighted to write.

Defoe's "Essay on Projects" he declared gave him a turn of thinking that had an influence on some of the principal future events of his life. He never attained the grace and delicacy of Addison, or the imaginative fervour of Bunyan, and his style is most nearly allied to the pedestrian prose of Defoe, who was the first great English journalist and master of reportorial narrative.

Thirty years' experience in journalism taught Franklin all that was to be known of the technic of that busy craft. A swift and sententious style was developed by the practical necessities of his newspaper, his magazine, and his Almanac. He equipped his arsenal of homely, vigorous expression with all the engines of satire, burlesque, and repartee. His own standard of simplicity may be understood from the following "Query":—

"How shall we judge of the goodness of a writing? Or what qualities should a writing have to be good and perfect *in its kind?*

"*Answer.* To be good, it ought to have a tendency to benefit the reader, by improving his virtue or his knowledge. But, not regarding the intention of the author, the method should be just; that is, it should proceed regularly from things known to things unknown, distinctly and clearly without confusion. The words used should be the most expressive that the language affords, provided that they are the most generally understood. Nothing should be expressed in two words that can be as well expressed in one; that is, no synonymes should be used, or very rarely, but the whole should be as short as possible, consistent with clearness; the words should be so placed as to be agreeable to the ear in reading; summarily it should be smooth, clear, and short, for the contrary qualities are displeasing.

"But, taking the query otherwise, an ill man may write an ill thing well; that is, having an ill design, he may use the properest style and arguments (considering who are to be readers) to attain his ends. In this sense, that is best wrote, which is best adapted for obtaining the end of the writer."

Smooth, clear, and short! Thirty years of versatile practice, and rigorous relentless self-criticism, had forged a supple-tempered style "that bent like perfect steel to spring again and thrust."

The severity of his criticism upon himself lends interest to his opinion of the criticisms of others. In reply to a correspondent, who had disabled his judgment, he said: "I have of late fancy'd myself to write better than ever I did, and, farther, that when anything of mine is abridged in the papers or magazines, I conceit that the abridger has left out the very best and brightest parts. These, my friend,

are much stronger proofs, and put me in mind of Gil Blas's patron, the homily-maker." Of an editor who had freely curtailed one of his contributions he said, "He has drawn the teeth and pared the nails of my paper, so that it can neither scratch nor bite. It seems only to paw and mumble."

Jefferson has told the classical story of Franklin's unwillingness to become the prey of critics by drafting public papers.

"When the Declaration of Independence was under the consideration of Congress there were two or three unlucky expressions in it which gave offense to some members. The words 'Scotch and other foreign auxiliaries' excited the ire of a gentleman or two of that country. Severe strictures on the conduct of the British King in negativing our repeated repeals of the law which permitted the importation of slaves were disapproved by some Southern gentlemen whose reflections were not yet matured to the full abhorrence of that traffic. Although the offensive expressions were immediately yielded, these gentlemen continued their depredations on other parts of the instrument. I was sitting by Dr. Franklin, who perceived that I was not insensible to these mutilations. 'I have made it a rule,' said he, 'whenever in my power, to avoid becoming the draughtsman of papers to be reviewed by a public body. I took my lesson from an incident which I will relate to you. When I was a journeyman printer, one of my companions, an apprentice hatter, having served out his time, was about to open shop for himself. His first concern was to have a handsome signboard, with a proper inscription. He composed it in these words, "John Thompson, *Hatter, makes* and *sells hats for ready* money," with the figure of a hat subjoined; but

he thought he would submit it to his friends for their amendments. The first he showed it to thought the word "*Hatter*" tautologous, because followed by the words "makes hats," which showed he was a hatter. It was struck out. The next observed that the word "*makes*" might as well be omitted, because his customers would not care who made the hats. If good and to their mind, they would buy, by whomsoever made. He struck it out. A third said he thought the words "*for ready money*" were useless, as it was not the custom of the place to sell on credit; every one who purchased expected to pay. They were parted with, and the inscription now stood, "John Thompson sells hats." "*Sells hats?*" says his next friend. "Why, nobody will expect you to give them away; what then is the use of that word?" It was stricken out, and "*hats*" followed it, the rather as there was one painted on the board. So the inscription was reduced ultimately to "John Thompson," with the figure of a hat subjoined.'"

Franklin's care for the purity of the language, and his nice precision in the use of words, constantly appear in his correspondence. Noah Webster sent him his "Dissertations on the English Language." Franklin replied (December 26, 1789): "I cannot but applaud your zeal for preserving the purity of our language, both in its expressions and pronunciation, and in correcting the popular errors several of our states are continually falling into with respect to both. Give me leave to mention some of them, though possibly they may have already occurred to you. I wish, however, in some future publication of yours, you would set a discountenancing mark upon them. The first I remember is the word *improved*. When I left New England in the year

'23, this word had never been used among us, as far as I know, but in the sense of *ameliorated* or *made better*, except once in a very old book of Dr. Mather's, entitled 'Remarkable Providences.' As that eminent man wrote a very obscure hand, I remember that when I read that word in his book used instead of the word *imployed*, I conjectured that it was an error of the printer, who had mistaken a too short *l* in the writing for an *r*, and a *y* with too short a tail for a *v*, whereby imployed was converted into *improved*. But when I returned to Boston, in 1733, I found this change had obtained favour, and was then become common; for I met with it often in perusing the newspapers where it frequently made an appearance rather ridiculous. Such, for instance, as the advertisement of a country-house to be sold, which had been many years *improved* as a tavern; and, in the character of a deceased country gentleman, that he had been for more than thirty years *improved* as a justice-of-peace. This use of the word *improved* is peculiar to New England, and not to be met with among any other speakers of English, either on this or the other side of the water. During my late absence in France I find that several other new words have been introduced into our parliamentary language; for example, I find a verb formed from the substantive *notice;* 'I should not have *noticed* were it not that the gentleman,' etc. Also another verb from the substantive *advocate;* 'The gentleman who *advocates* or has *advocated* that motion,' etc. Another from the substantive *progress*, the most awkward and abominable of the three; 'The Committee having *progressed*, resolved to adjourn.' The word *opposed*, tho' not a new word, I find used in a new manner, as, 'The gentlemen who are *opposed* to this meas-

ure; to which I have also myself always been *opposed.*' If you should happen to be of my opinion with respect to these innovations you will use your authority in reprobating them."

The whole of this letter, written less than four months before his death, is full of interest.

When David Hume received from Franklin a copy of his so-called "Canada pamphlet," he gave the author a few words of "friendly admonition relating to some unusual words in the pamphlet." *Pejorate, colonize,* and *unshakeable* were three of the words that came under censure. Franklin gave up the first two as bad, since they were provincial and not in common use in Great Britain, "for certainly," he wrote, "in writings intended for persuasion and for general information, one cannot be too clear; and every expression in the least obscure is a fault. The *unshakeable* too, though clear, I give up as rather low. The introducing new words where we are already possessed of old ones sufficiently expressive, I confess must be generally wrong, as it tends to change the language; yet, at the same time I cannot but wish the usage of our tongue permitted making new words, when we want them, by composition of old ones whose meanings are already well understood. The German allows of it, and it is a common practice with their writers. Many of our present English words were originally so made; and many of the Latin words. In point of clearness such compound words would have the advantage of any we can borrow from the ancient or from foreign languages. For instance the word *inaccessible,* though long in use among us, is not yet, I dare say, so universally understood by our people, as the word *uncomeatable* would immediately be,

which we are not allowed to write. But I hope, with you, that we shall always in America make the best English of this island our standard, and I believe it will be so. I assure you it often gives me pleasure to reflect how greatly the *audience* (if I may so term it) of a good English writer will, in another century or two, be increased by the increase of English people in our colonies."

From which rational conception of literature, and from his experiences in winning the mastery of a powerful and persuasive style, it may be inferred that Franklin's English is no intertissued robe of gold and pearl, no taffeta phrases and silken terms precise, but honest, homely, hearty speech, without obscurity or ambiguity, an English that speaks in russet yeas and honest kersey noes.

It may not seem high commendation to say that Franklin was the chief American writer at a time when men of letters were rare as Phœnix. But his significance in literature appears when we remember that he was the first American to transcend provincial boundaries and limitations, and the first author and scientist to achieve wide and permanent reputation in Europe. Before his Autobiography but one literary work of real importance had been done in the colonies, and that was the stupendous "Magnalia" of Cotton Mather, a vast glacial boulder and monument of what C. F. Adams has happily called the "ice age" of New England Puritanism. The Autobiography was quite another thing. It was vivid, truthful, thrilling with life, for it was the simple, fascinating narrative of a career that began in lowly surroundings and ended in splendour. It contained therefore the substance of the stories that have chiefly interested the world. Nothing but the "Autobiography" of

Benvenuto Cellini, or the "Confessions" of Rousseau, can enter into competition with it. It is an abiding monument of American life and letters. In the United States it has been reprinted many scores of times, and it has been translated into all the languages of Europe; however the fashions of literature change the vogue of this work is unalterable. At the circulating libraries the demand for it is constant. One of the leading merchants of the world, who rose from low estate to power and wealth and influence, and whose name is well known in literature, has said that when a boy a copy of A. Millar's edition of the Autobiography (1799) was one of his very few books. He read it again and again, and he ascribes a very large portion of his success in life to the lessons of perseverance, self-reliance, and economy illustrated in it. Many other instances of such encouragement and inspiration doubtless exist.

Franklin's writings have two objects: to instruct in principles of science and to influence conduct. The latter works alone have real literary worth. In all that relates to personal prosperity and the happiness of private life, his reasoning is convincing and his style dignified and admirable. In the Prefaces and Prognostications of "Poor Richard," Franklin as man of letters shows to the best advantage, and here the theme is always practical wisdom in the conduct of life. "Father Abraham's Speech to the American People at an Auction," which appeared in "Poor Richard's Almanac" for 1758, is the best example of this style, and the best sermon ever preached upon industry and frugality. It is a cento of homely saws and practical quotations. Reprinted as "The Way to Wealth," it became at once familiar to the world. It was copied into all the

newspapers of the continent, and circulated in Great Britain as a broadside. "Seventy editions of it have been printed in English, fifty-six in French, eleven in German, and nine in Italian. It has been translated into Spanish, Danish, Swedish, Welsh, Polish, Gaelic, Russian, Bohemian, Dutch, Catalan, Chinese, Modern Greek, and phonetic writing. It has been printed at least four hundred times, and is to-day as popular as ever" (P. L. Ford).

Balzac knew intimately well the writings of two Americans, Franklin and Cooper. Both made deep impression upon him. When under the influence of "Poor Richard" he created the character of M. Gausse in "Le Vicaire des Ardennes," a youthful piece of folly which he afterward disowned. M. Gausse is the lean Yankee moralist Abraham metamorphosed into a corpulent French vicar, who utters sage prudential maxims gathered from a careful reading of the Philadelphia almanacs. At a maturer period Balzac summed up Franklin's achievement in a terse epigram: "Le canard est une trouvaille de Franklin, qui a inventé le paratonnerre, le canard, et la république."[1] The inventor of the lightning rod, the hoax, and the republic! These three achievements may serve to introduce a classification of Franklin's works, which may accordingly be arranged in three groups: philosophy, politics, and bagatelles.

The philosophical writings are the most numerous and important. They cover a singularly wide range, and touch upon an astonishing variety of subjects. In every department of thought the leaders of scientific inquiry in Europe were curious to know Franklin's opinions, and gave respectful attention to every suggestion and conjecture that pro-

[1] *Balzac,* "Illusions perdues, II Partie, un Grand Homme de Province a Paris."

ceeded from that fertile brain. His works comprehended almost every phase of intellectual activity known to the eighteenth century. Hume expressed the sentiment with which Europe regarded Franklin, the man of science, when he wrote to him (May 10, 1762): "America has sent us many good things, gold, silver, sugar, tobacco, indigo, etc., but you are the first philosopher and indeed the first great man of letters for whom we are beholden to her. It is our own fault that we have not kept him; whence it appears that we do not agree with Solomon that wisdom is above gold; for we take care never to send back an ounce of the latter, which we once lay our fingers upon."

Franklin was a true searcher into nature, humble in the pursuit of truth. His philosophical writings were the products of rare intervals of repose. The business of his life was politics. And during a great part of his life it was a very exacting business, which left him little time or strength for any other occupation. Occasionally he turned from the irksome toil and incredible worry of his public duties — selling of prize ships, adjusting of differences between rival captains, begging for money for ragged and hungry soldiers, receiving diplomatic visitors and ambitious aspirants for military positions, corresponding with Congress, or writing political articles for the *Gazette de Leyde*, or the *London Chronicle*, to influence popular opinion in England and upon the continent — to divert and solace and refresh himself with scientific experiments or brief excursions into the conjectural and debatable subjects of new philosophical research. He knew the immensity of the world of knowledge. He realized and deplored the infinite labours and distractions that interfered with his exploration of those

untravelled fields, of which occasional glimpses were vouchsafed to him. He was therefore dissatisfied with his own investigations. Unwelcome visitors and uncongenial business interrupted these "more pleasing pursuits," until he said, "The chain of thought necessary to be closely continued in such disquisitions [is] so broken and disjointed, that it is with difficulty I satisfy myself in any of them." The complaint of the scholar whose precious time is consumed in unprofitable occupations is heard in many of Franklin's letters. Writing to Dr. Ingenhousz (April 29, 1785) he says: "Besides being harassed by too much business, I am exposed to numberless visits, some of kindness and civility, many of mere idle curiosity, from strangers of America and of different parts of Europe as well as the inhabitants of the provinces who come to Paris. These devour my hours, and break my attention, and at night I often find myself fatigued without having done anything. Celebrity may for a while flatter one's vanity, but its effects are troublesome. I have begun to write two or three things which I wish to finish before I die, but I sometimes doubt the possibility."

It was for this reason that he set no high value upon his scientific papers, which he regarded as random and imperfect. He called them "Loose Thoughts," "Conjectures and Suppositions"; and as though apologizing for them he said he had a *penchant* for building hypotheses,—"they indulge my natural indolence."

To Peter Collinson he wrote, when sending to him a large philosophical packet: "These thoughts, my dear friend, are many of them crude and hasty; and if I were merely ambitious of acquiring some reputation in philosophy, I

ought to keep them by me, till corrected and improved by time and farther experience. But since even short hints and imperfect experiments in any new branch of science being communicated, have oftentimes a good effect, in exciting the attention of the ingenious to the subject, and so become the occasion of more exact disquisition, and more complete discoveries, you are at liberty to communicate this paper to whom you please; it being of more importance that knowledge should increase than that your friend should be thought an accurate philosopher."[1] His modesty was genuine, and not a cloak for secret pride. Louis XV commanded Abbé Mazéas to write a letter in the politest terms to the Royal Society, to return the king's thanks and compliments in an express manner to Mr. Franklin of Pennsylvania, for his useful discoveries in electricity, and appreciation of the pointed rods to prevent the terrible effects of thunder-storms. When Collinson conveyed this flattering news to Franklin, the latter would have been more or less than human not to have experienced a sense of elation, but he wrote to Jared Eliot: "The *Tatler* tells us of a girl who was observed to grow suddenly proud, and none could guess the reason till it came to be known that she had got on a pair of new silk garters. . . . I fear I have not so much reason to be proud as the girl had; for a feather in the cap is not so useful a thing, or so serviceable to the wearer, as a pair of good silk garters." Many instances might be mentioned of Franklin's native modesty. Nogaret sent to him his translation of Turgot's famous line "Eripuit caelo fulmen, sceptrumque tyrannis." Franklin replied, "J'ai reçu la lettre dans laquelle après m'avoir accablé d'un torrent de

[1] To Peter Collinson, September, 1753.

Compliments qui me causent un Sentiment pénible, car je ne puis espérer les meriter jamais. . . . Je vous ferai seulement remarquer deux inexactitudes dans le vers original. Malgré mes expériences sur l'électricité, la foudre tombe toujours a notre nez et a notre barbe, et quant au tyrans nous avons été plus d'un million d'hommes occupé a lui arracher son sceptre."

He experienced profound mortification when Dr. Rush concluded a scientific paper with a eulogy of him, which he read in his presence. He wrote to Rush: "During our long acquaintance you have shown many instances of your regard for me; yet I must now desire you to add one more to the number, which is, that if you publish your ingenious discourse on the Moral Sense you will totally omit and suppress that most extravagant encomium on your friend Franklin which hurt me exceedingly in the unexpected hearing and will mortify me beyond conception if it should appear from the press" (March, 1786).

His modesty, simplicity, and sincerity are charming traits, and his contributions to science are delightful reading. Every paper is characterized by downright perspicacity of thought and forthright directness of style. He never labours at a problem or seems to put forth his whole strength. There is neither tug nor strain nor occasional descent of fog. His thought stands in clear, hard, noonday light with graphical precision of logical exposition. His imagination does not tyrannize over his reason or distort his vision. He sees things as they really are. Pedantry and obscurity are far from him. Sometimes he refers cheerfully to the manner in which philosophers darken counsel with cabalistic signs and formulæ, or by "pronouncing of some doubtful phrase."

At the close of a paper on "Water-spouts and Whirlwinds," he says: "If my hypothesis is not the truth itself it is at least as naked for I have not with some of our learned moderns disguised my nonsense in Greek, clothed it in algebra or adorned it with fluxions. You have it in puris naturalibus."

Sir Humphry Davy — "summus Arcanorum Naturae Indagator"—was an excellent judge of literary merit as well as of scientific research. He was so delighted with the precision and perspicacity of Franklin's style that he said: "A singular felicity guided all Franklin's researches, and by very small means he established very grand truths. The style and manner of his publication on electricity are almost as worthy of admiration as the doctrine it contains. He has endeavoured to remove all mystery and obscurity from the subject. He has written equally for the uninitiated and for the philosopher; and he has rendered his details amusing as well as perspicuous, elegant as well as simple. Science appears in his language in a dress wonderfully decorous, the best adapted to display her native loveliness. He has in no instance exhibited that false dignity, by which philosophy is kept aloof from common applications; and he has sought rather to make her a useful inmate and servant in the common habitations of man, than to preserve her merely as an object of admiration in temples and palaces."

He was as simple, clear, and direct in his experiments as in his style. This was the peculiarity for which, in Lord Brougham's estimation, Franklin's genius was so remarkable. "He could make an experiment," said Brougham, "with less apparatus and conduct his experimental inquiry to a discovery with more ordinary materials than any other

philosopher we ever saw. With an old key, a silk thread, some sealing wax and a sheet of paper he discovered the identity of lightning and electricity." [1]

Innumerable are the stories that are told of his ingenuity in that way; and an instructive little volume of simple and economical experiments might be compiled from his philosophical writings. A thermometer was sent to him from England and was broken in the passage. Mr. Bird, the instrument maker in London, was of opinion that it was impracticable to mend it. The tube was whole, but the ball was broken. Franklin told Collinson how he tried to repair it. "I got a thin Copper Ball nicely made, and fix'd to the Tube with a Screw Plug entering the Ball at the Bottom, by means of which Screw going into the cavity of the Ball, more or less, among the Mercury, I hoped to lessen or enlarge the Cavity at Pleasure, and by that Means find the true Quantity of Mercury it ought to contain to rise and fall exactly with the others in the same Temperature of Air etc. . . . I was much pleas'd with my Project but I find difficulties in the Execution which I did not foresee tho' they must occur to him [Bird] immediately." [2]

During a voyage from Madeira to Philadelphia, Franklin became interested in the singular behaviour of the oil in a cabin lamp of Italian construction. He wrote to Sir John Pringle a description of it, which I venture to repeat here: "At supper, looking on the lamp, I remarked, that though the surface of the oil was perfectly tranquil, and duly preserved its position and distance with regard to the brim of the glass, the water under the oil was in great commotion,

[1] Brougham, Works (Edinburgh, 1872). VI, 253.
[2] To Collinson, June 26, 1755.

rising and falling in irregular waves which continued during the whole evening. The lamp was kept burning as a watch-lamp all night, till the oil was spent and the water only remained. In the morning I observed that though the motion of the ship continued the same, the water was now quiet, and its surface as tranquil as that of the oil had been the evening before. At night again when oil was put upon it, the water resumed its irregular motions, rising in high waves almost to the surface of the oil, but without disturbing the smooth level of that surface. And this was repeated every day during the voyage."[1] After his arrival in America he repeated the experiment thus. He put a pack thread round a tumbler, with strings of the same from each side, meeting above it in a knot at about a foot distance from the top of the tumbler. "Then putting in as much water as would fill about one third part of the tumbler I lifted it up by the knot, and swung it to and fro in the air; when the water seemed to keep its place in the tumbler as steadily as if it had been ice. But pouring gently in upon the water about as much oil, and then again swinging it in the air as before, the tranquillity before possessed by the water was transferred to the surface of the oil, and the water under it was agitated with the same commotions as at sea." Franklin showed this experiment to many ingenious persons. Those who knew little of the principles of hydrostatics were apt to fancy that they understood it, but their explanations were not very intelligible. "Others, more deeply skilled in those principles, seem to wonder at it, and promise to consider it. And I think it is worth considering; for a new appearance if it cannot be explained by our old principles

[1] To Sir John Pringle, December 1, 1762.

may afford us new ones of use perhaps in explaining some other obscure parts of natural knowledge." The present writer has had the same experience in his search for an explanation; from the physicists to whom he has submitted the problem, he has received promises "to consider it."

Franklin introduced into England the pulse-glass, by which water is made to boil *in vacuo* by the heat of the hand. Nairne, the mathematical instrument maker, made a number of them from the one that Franklin brought from Germany. Franklin bored a very small hole through the wainscot in the seat of his window, through which a little cold air constantly entered, while the air in the room was kept warmer by fires daily made in it. "I placed one of his glasses, with the elevated end against the hole; and the bubbles from the other end, which was in a warmer situation were continually passing day and night, to the no small surprise of even philosophical spectators." His library was filled with odd mechanical contrivances of his own invention. Upon the chimneypiece a globe floated between two liquids. The seat of his arm-chair when turned up became a step-ladder, while to the arm of the chair was attached a fan which was operated by a slight motion of the foot. Upon the bookcase rested "the long arm," an invention intended for the easy bringing down of books from top shelves.

Even his clock was of his own invention, and is one of the curiosities of horology. It is described by him in a letter to Dr. Ingenhousz (April 29, 1785) as a clock with three wheels. It is usually called Ferguson's clock, and was contrived by that rare mathematical genius, James Ferguson, in 1758, as an improvement upon Franklin's idea. In his

"Select Mechanical Exercises" Ferguson says it is "A clock that shows the hours, minutes, and seconds by means of only three wheels and two pinions in the whole movement. As Dr. Franklin whom I rejoice to call my friend is perhaps the last person in the world who would take anything amiss that looks like an amendment or improvement of any scheme he proposes, I have ventured to offer my thoughts concerning his clock, and how one might be made as simple as his with some advantages. But I must confess that my alteration is attended with some inconveniences, of which his are entirely free." There is a curious old clock now in the Museum at Banff that has engraved on it "John T. Desaguliers, LL.D., 1729, Lect. on Nat. et Exp. Phil., London. Benjamin Franklin, LL.D., 1757. James Ferguson, 1766. Kenneth McCulloch, 1774," and the initials "G. W."[1]

Franklin's mind teemed with ideas. In a single letter he speaks of linseed oil, northeast storms, the origin of springs in mountains, petrified shells in the Appalachians, and tariff laws—subjects apparently far apart and with little connection, and yet they are linked together with relevancy enough, for, as he said with homely comparison, "ideas will string themselves like ropes of onions."

His philosophical writings relate to subjects of electricity, seismology, geology, meteorology, physics, chemistry, astronomy, mathematics, hydrography, horology, aëronautics, navigation, agriculture, ethnology, paleontology, medicine, hygiene, and pedagogy.

As the papers upon electricity are the most important,

[1] "Life of James Ferguson, F.R.S., by E. Henderson, LL.D. A. Fullarton & Co. *Ed. Lond. & Glasgow, 1867,*" p. 232.

they shall be reserved to the last. One of the first of his essays upon scientific theory appeared in the *Pennsylvania Gazette* in 1737. It related to the "causes of earthquakes." He adopted the thin crust theory of the earth, and recited the history of several famous instances of seismic disturbance. His notions are so crude, and now so worthless, and the whole essay so immature, that I have seen no good reason to make room for it in this edition.

The best of his geologic papers is his letter to Abbé Soulavie, "On the Theory of the Earth" (September 22, 1782). The Abbé sent to Franklin some notes he had taken of his conversation upon this subject, and Franklin replied with this letter, intended, as he said, "to set him right in some points wherein he had mistaken my meaning." Six years later the letter was read at a meeting of The American Philosophical Society (November 21, 1788). Franklin had noticed that at the lowest part of the calcareous rock in Derbyshire, there were oyster shells mixed in the stone, "and part of the high county of Derby being probably as much above the level of the sea, as the coal mines of Whitehaven were below it, seemed a proof that there had been a great *bouleversement* in the surface of that island, some part of it having been depressed under the sea, and other parts which had been under it, being raised above it. Such changes in the superficial parts of the globe seemed to me unlikely to happen, if the earth were solid to the centre. I therefore imagined, that the internal parts might be a fluid more dense and of greater specific gravity than any of the solids we are acquainted with, which therefore might swim in or upon *that fluid.* Thus the surface of the globe would be a shell, *capable of being* broken and disordered by the violent move-

ments of the fluid on which it rested." He theorizes with regard to the changes that the earth has undergone in geologic time, and concludes with the particular instance of his own neighbourhood: "Such an operation as this possibly occasioned much of Europe, and among the rest this mountain of Passy on which I live, and which is composed of limestone, rock, and sea shells to be abandoned by the sea, and to change its ancient climate, which seems to have been a hot one." This letter has peculiar interest, as it is a rare occasion when Franklin permits himself "to wander a little in the wilds of fancy."

Franklin's utilitarian philosophy discovered a providential and beneficent purpose in the catastrophes which the earth has suffered. Writing to Sir John Pringle (January 6, 1758) he said: "Had the different strata of clay, gravel, marble, coals, limestone, sand, minerals, etc., continued to lie level, one under the other, as they may be supposed to have done before these convulsions, we should have had the use only of a few of the uppermost of the strata, the others lying too deep and too difficult to be come at; but, the shell of the earth being broke, and the fragments thrown into this oblique position, the disjointed ends of a great number of strata of different kinds are brought up to-day, and a great variety of useful materials put into our power, which would otherwise have remained eternally concealed from us. So that what has been usually looked upon as a *ruin* suffered by this part of the universe, was, in reality, only a preparation or means of rendering the earth more fit for use, more capable of being to mankind a convenient and comfortable habitation."

John Whitehurst, *a maker* of watches and philosophical

instruments, who wrote an "Inquiry into the Original State and Formation of the Earth" (1778), was one of Franklin's friends, and much correspondence must have passed between them. He lived at Derby, and was intimately acquainted with Anthony Tissington, who entertained Franklin at Stanwick in Derbyshire. Franklin's letters to Whitehurst have not been found, but several from the latter to Franklin are well known. Upon one occasion he sends him a present of a Derbyshire ham, and informs him that it has gone by the "Derby dilly." At another time he introduces a young artist named Powell—"a sober worthy youth"—who desires to study under Benjamin West. In 1779 he sends him a copy of his "Inquiry," by the hand of Baron Waites, a mineralogist, who has been visiting the mineral localities of Derbyshire.

In the British Museum is a copy of a book entitled "A Letter to a Friend on the mineral customs of Derbyshire. In which the Question relative to the claim of the Duty of Lot on Smitham is occasionally considered. By a Derbyshire working miner. London. Printed for the Author and sold by T. Payne. 1766." Knowing the friendliness that existed between Tissington, Whitehurst, and Franklin, it is not a little curious to discover in this volume the following manuscript note: "Mr. Ince of Wirksworth, Atty, told me on the 26 Nov. 1794 that this pamphlet was wrote by Dr. Benjamin Franklin, the celebrated patriot and champion of American liberty and independence, during one of his visits to Mr. Anth^{y}. Tissington of Stanwick in the Co. of Derby; at whose desire it was wrote and by whom the subject matter was suggested. The information is of a very superficial kind and the language does the Doctor no

great credit. It was intended by Mr. Tissington to rouse the interested passions of the common working miners to oppose a very just demand made on them by Mr. Rowls (lessee of the Duchy) of lot on Smytham and perhaps might be sufficiently calculated for that purpose notwithstanding its defects." The note is signed "A. W." The awkward blundering manner of the writing bears no resemblance to the smooth and even style of Franklin. But the very ascription of the pamphlet to him indicates the extension of his fame, and the respect in which his technical and scientific knowledge was held.

Among Franklin's papers upon meteorology will be found his interesting discovery that our northeast storms originate in the southwest. In two letters (to Jared Eliot, February 13, 1750, and to Alexander Small, May 12, 1760) he has developed this theory. I have omitted the first-named letter since they are practically identical, and it would be superfluous to reprint both. His explanation is interesting for the simplicity and directness of his illustrations: "Suppose a great tract of country, land and sea, to wit, Florida and the Bay of Mexico, to have clear weather for several days, and to be heated by the sun, and its air thereby exceedingly rarefied. Suppose the country northeastward, as Pennsylvania, New England, Nova Scotia, and Newfoundland, to be at the same time covered with clouds, and its air chilled and condensed. The rarefied air being lighter must rise, and the denser air next to it will press into its place; that will be followed by the next denser air, that by the next and so on. Thus, when I have a fire in my chimney, there is a current of air constantly flowing from the door to the chimney; but the beginning of the motion was at the chim-

ney, where the air being rarefied by the fire rising, its place was supplied by the cooler air that was next to it, and the place of that by the next, and so on to the door. So the water in a long sluice or mill-race, being stopped by a gate, is at rest like the air in a calm; but as soon as you open the gate at one end to let it out, the water next the gate begins first to move, that which is next to it follows; and so, though the water proceeds forward to the gate, the motion which began there runs backwards, if one may so speak, to the upper end of the race, where the water is last in motion. We have on this continent a long ridge of mountains running from northeast to southwest; and the coast runs the same course."[1]

Alexander Dallas Bache, Superintendent of the Coast Survey, and a great-grandson of Franklin, deemed the discovery of sufficient importance to enter into an elaborate astronomical inquiry to determine the precise date when it was made. It is another instance of the nice inquisitiveness of Franklin's mind. He had attempted to observe an eclipse of the moon at nine o'clock in the evening, but before night a storm blew up at northeast and continued violent for a night and a day. The storm extended all along the coast and did much damage, but Franklin was surprised to find in the Boston newspapers an account of an observation of that eclipse made there. As the storm came from the northeast it should have begun sooner at Boston than at Philadelphia. He wrote to his brother about it and learned that the eclipse was over an hour before the storm began at Boston. Further inquiries convinced him that northeast storms begin to leeward, and have their beginning

[1] To Jared Eliot, February 13, 1749–1750.

always later the further northeastward; the proportion of time to distance being about an hour to every hundred miles.

Speaking from memory, Franklin said in his letter to Small (1760) that the eclipse in question was "about twenty years ago." Professor Bache consulted the ephemerides, and found that the eclipse occurred in the evening of October 21, 1743.[1]

The most interesting of the meteorological papers relate to waterspouts and whirlwinds, which Franklin believed to be similar and to proceed from the same cause, "the only difference between them being, that the one passes over land, the other over water." [2]

In 1755 he had an opportunity of seeing and examining a whirlwind, a graphic description of which he sent to Peter Collinson (August 25, 1755). He was riding with Colonel Tasker to his country-seat in Maryland when, in the vale below them, a small whirlwind began in the road. Franklin describes it with his customary clearness and precision. "It appeared in the form of a sugar loaf, spinning on its point, moving up the hill towards us and enlarging as it came forward. When it passed by us, its smaller part near the ground appeared no bigger than a common barrel; but widening upwards it seemed at forty or fifty feet high, to be twenty or thirty feet in diameter. The rest of the company stood look-

[1] "An Attempt to fix the Date of the Observation of Dr. Franklin in Relation to the Northeast Storms of the Atlantic Coast of the United States. By A. D. Bache, *Journal of the Franklin Institute*, 1833."

[2] See the letter to John Perkins, February 4, 1753; read at the Royal Society, June 24, 1756. And a further paper, "Physical and Meteorological Observations, Conjectures and Suppositions," read at the Royal Society, June 3, 1756.

ing after it; but my curiosity being stronger I followed it, riding close by its side, and observed its licking up in its progress all the dust that was under its smaller part. As it is a common opinion that a shot, fired through a water-spout will break it, I tried to break this little whirlwind, by striking my whip frequently through it, but without any effect. Soon after it quitted the road and took into the woods, growing every moment larger and stronger, raising, instead of dust, the old dry leaves with which the ground was thick covered, and making a great noise with them and the branches of the trees, bending some tall trees round in a circle swiftly and very surprisingly, though the progressive motion of the whirl was not so swift but that a man on foot might have kept pace with it, but the circular motion was amazingly rapid. By the leaves it was now filled with, I could plainly perceive, that the current of air they were driven by, moved upwards in a spiral line; and when I saw the passing whirl continue entire, after leaving the trunks and bodies of large trees which it had enveloped, I no longer wondered that my whip had no effect on it in its smaller state. . . . When we rejoined the company, they were admiring the vast height of the leaves now brought by the common wind over our heads. These leaves accompanied us as we travelled, some falling now and then round about us, and some not reaching the ground till we had gone near three miles from the place where we first saw the whirlwind begin. Upon my asking Colonel Tasker if such whirlwinds were common in Maryland he answered pleasantly, 'No, not at all common; but we got this on *purpose to treat* Mr. Franklin.' And a very high treat it *was.*"

Much of his correspondence concerning meteorology was carried on with Dr. Thomas Percival, of Manchester, a friend of Bishop Watson, of Llandaff. To him Franklin consigned his inquiry into the cause of the severe cold in the winter of 1783–1784, which Percival communicated to the Literary and Philosophical Society of Manchester.[1] The severity of that winter Franklin believed to be due to a constant fog that existed over all Europe and great part of North America during several of the summer months of 1783. "This fog was of a permanent nature; it was dry, and the rays of the sun seemed to have little effect towards dissipating it, as they easily do a moist fog, arising from water. They were indeed rendered so faint in passing through it, that when collected in the focus of a burning-glass, they would scarcely kindle brown paper. Of course their summer effect in heating the earth was exceedingly diminished." He conjectured that this strange and persistent fog originated in the consumption by fire of some great aërolite kindled and destroyed in passing our atmosphere, "and whose smoke might be attracted and retained by our earth," or in the vast quantity of volcanic smoke emitted during the eruption of Mount Hecla.

Franklin also sent to Percival his paper on the "Consumption of Smoke." Percival had observed with concern a large annual increase of pulmonary complaints in Manchester, then (1786) a town of forty-six thousand inhabitants. After reading Franklin's essay, he became convinced that the smoke from the velvet dress works, particularly acrimonious and offensive to the lungs, was the

[1] It was read before that *society, December* 22, 1784, and printed in the "*Memoirs,*" *Vol. II, p. 357.*

cause of the alarming increase of cases of consumption. He therefore offered a representation to the magistrates at the ensuing Quarter Sessions "of the expediency and necessity of adopting some measures to purify the air of Manchester."

In physics and chemistry Franklin was in correspondence and personal contact with Priestley, Cavendish, and Lavoisier. He was therefore familiar with the new ideas concerning the properties of matter, and was able by experimental research and by suggestion to assist in the development of the theories of light and heat, which were already shaping toward the modern doctrine of the forces of nature. Lavoisier invited him to his laboratory, when a new and important experiment was to be tried. Priestley consulted him at every step, as he groped his way toward a more perfect understanding of the nature of gases. In his "Experiments on Air," Priestley published the letters he had received from Franklin, which opened new horizons to him and set him upon novel ways of thought and experiment. In one such letter, dated April 10, 1774, Franklin gave what is perhaps the earliest clear account of marsh-gas. As early as 1764 he had experimentally ignited the surface of certain rivers in New Jersey, after stirring up the mud at the bottom in shallow places. He mentioned the fact to some philosophical friends in England, but was thought to have been beguiled by his overcredulity. A paper prompted by his investigations was offered to the Royal Society (1765), and denied a place in the Transactions because it was thought too strange to be true. With genuine scientific enthusiasm and perseverance, Franklin tried the experiment in England until, from bending over the stagnant water of a deep ditch and breathing too

much of the foul air, he was seized with an intermittent fever.

Experiments that he had not time or means of making he was constantly recommending to his philosophical acquaintance. He asked M. de Saussure, the Genevese professor who ascended Mont Blanc, to try to ascertain the lateral attraction of the Jura mountains with the view of determining the mean density of the earth upon the Newtonian theory of gravitation.[1]

To Dr. Ingenhousz he suggested "hanging a weight on a spiral spring, to discover if bodies gravitated differently to the earth during the conjunctions of the sun and moon, compared with other times." He expected that an iron ball of a pound weight suspended by a fine spiral spring "should, when the sun and moon are together both above it, be a little attracted upwards or rendered lighter, so as to be drawn up a little by the spring on which it depends, and the contrary when they are both below it."

Another experiment which, performed by Franklin, excited universal interest was the pouring of oil upon waters in a state of tumult. Upon his visit with Sir John Pringle to the north of England, he accepted the hospitality of Dr. Brownrigg, a chemist of Cumberland. In his company he put forth into the midst of Derwentwater, when its waves were beaten to fury and to foam by a tempestuous mountain wind, and successfully performed the experiment of smoothing the lake by pouring oil upon its surface. Aristotle and Plutarch and Pliny had said that it could be done. Frank-

[1] Experiments which were subsequently made with entire success by Nevil Maskelyne on Mt. Schehallion in Perthshire (1774). Franklin's letters to Saussure were dated October 8 and December 1, 1772.

lin was the first among experimental philosophers to demonstrate that a few drops of oil would tranquillize turbulent waters.[1]

So interested was he in his experiment that he was wont to take with him, when he went into the country, a little oil in the upper hollow joint of his bamboo cane to watch the effect upon wind-beaten pools. The novelty of the experiment pleased John Smeaton, the engineer, when Franklin tried it upon a little pond near his house at Austhorpe Lodge, near Leeds. He showed it also to Count Bentinck of Holland and the celebrated Professor Allemand upon a large piece of water at the head of the Green Park. Allemand repeated the experiment in the ditch about Leyden. Dr. Percival wrote to Franklin from Manchester (January 10, 1775), "The experiment of stilling waves by pouring oil upon water was tried here last week with success." William Small wrote from Birmingham that Matthew Boulton had "astonished the rural philosophers exceedingly by calming the waves *à la Franklin.*"

Abbé Morellet was at Wycombe in April, 1772, the guest of Lord Shelburne, and met there Colonel Barré, Dr. Hawkesworth, David Garrick, and Franklin. In his "Memoirs" he records the interest that the entire party took in Franklin's experiment with oil. Morellet had regarded it as a fable of antique writers. "It is true," he writes, "it was not upon the waves of the sea but upon those of a little stream which flowed through the park at Wycombe. A fresh breeze was ruffling the water. Franklin ascended a couple of hundred

[1] See Franklin's letter to William Brownrigg, London, November 7, 1773. This letter was published in *Journal des Sçavans*, November 6, 1774, from which it was translated by William Van Lehsveld, of Leyden, into Dutch.

paces from the place where we stood, and simulating the grimaces of a sorcerer, he shook three times upon the stream a cane which he carried in his hand. Directly the waves diminished, and soon the surface was smooth as a mirror." [1]

Concerning the properties of matter, it is astonishing what clear conception Franklin had of ideas that we are apt to regard as of much more recent origin. Long before Young was born, and while nearly all philosophers held to the corpuscular theory of light, Franklin had expressed his dissatisfaction with the Newtonian hypothesis. He wrote to Collinson, "There is nothing that I am so much in the *dark* about as *light*." But when he offered some "loose thoughts on a universal fluid" to the consideration of David Rittenhouse (June 25, 1784), he clearly indicated the new theory of light and foreshadowed the modern doctrine of conservation of matter. Without giving it a name, he imagined "universal space as far as we know it . . . to be filled with a subtil fluid whose motions or vibration is called light." He concludes with this remarkable inference: "The power of man relative to matter seems limited to the dividing it, or mixing the various kinds of it, or changing its form and appearance by different compositions of it; but does not extend to the making or creating of new matter or annihilating the old. Thus if fire be an original element, or kind of matter, its quantity is fixed and permanent in the universe. We cannot destroy any part of it or make addition to it; we can only separate it from that which confines it, and so set it at liberty."

[1] "Mémoires inédits de L'Abbé Morellet, deuxième édition, Paris, MDCCCXXII," Tome Premier, 204.

For other curious observations upon the surface tension of liquids, see Franklin to Sir John Pringle, December 1, 1762.

Professor Schuster conjectures that Franklin did not probably realize the difficulties in the way of the wave theory which led Newton to pronounce against it. It may very well be, but has any philosopher, past or present, defined the wave theory more clearly or forcibly? Writing to Cadwallader Colden, Franklin said: "May not all the phenomena of light be more conveniently solved by supposing universal space filled with a subtle elastic fluid, which, when at rest, is not visible, but whose vibrations affect that fine sense in the eye, as those of air do the grosser organs of the ear? We do not, in the case of sound, imagine that any sonorous particles are thrown off from a bell, for instance, and fly in straight lines to the ear; why must we believe that luminous particles leave the sun and proceed to the eye? Some diamonds if rubbed shine in the dark, without losing any of their matter. I can make an electric spark as big as the flame of a candle, much brighter, and therefore visible further; yet this is without fuel; and, I am persuaded, no part of the electric fluid flies off in such case, to distant places, but all goes directly, and is to be found in the place to which I destine it. May not different degrees of the vibration of the above-mentioned universal medium, occasion the appearance of different colours? I think the electric fluid is always the same; yet I find that weaker and stronger sparks differ in apparent colour, some white, blue, purple, red; the strongest white; weak ones red. Thus different degrees of vibration given to the air, produce the seven different sounds in music, analogous to the seven colours, yet the medium, air, is the same.

"If the sun is not wasted by expence of light, I can easily conceive that he shall otherwise always retain the same

quantity of matter; though we should suppose him made of sulphur constantly flaming.

"The action of fire only *separates* the particles of matter, it does not *annihilate* them. Water, by heat raised in vapour, returns to the earth in rain; and if we could collect all the particles of burning matter that go off in smoke, perhaps they might, with the ashes, weigh as much as the body before it was fired: And if we could put them into the same position with regard to each other, the mass would be the same as before, and might be burnt over again. The chymists have analised sulphur, and find it composed, in certain proportions, of oil, salt, and earth; and having by the analysis discovered those proportions, they can, of those ingredients, make sulphur. So we have only to suppose, that the parts of the sun's sulphur, separated by fire, rise into his atmosphere, and there being freed from the immediate action of the fire, they collect into cloudy masses, and growing by degrees, too heavy to be longer supported, they descend to the sun and are burnt over again. Hence the spots appearing on his face which are observed to diminish daily in size, their consuming edges being of particular brightness.

"It is well we are not, as poor Galileo was, subject to the Inquisition for Philosophical Heresy. My whispers against the orthodox doctrine, in private letters, would be dangerous; but your writing and printing would be highly criminal." [1]

The late Dr. Youmans in the Introduction to the American edition of "Correlation and Conservation of Force" said: "It was this country, widely reproached for being over-practical, which produced just that kind of working ability that was suited to transfer this profound question from the

[1] To Cadwallader Colden, April 23, 1752.

barren to the fruitful field of inquiry. It is a matter of just national pride that the two men that first demonstrated the capital propositions of pure science, that lightning is but a case of common electricity and that heat is but a mode of motion, who first converted these propositions from conjectures of fancy to facts of science, were not only Americans by birth and education, but eminently representative of the peculiarities of American character, Benjamin Franklin and Benjamin Thompson, afterwards known as Count Rumford."

I shall soon have occasion to refer to a letter written by Robespierre to Franklin requesting information concerning lightning rods. There is another interesting link between Franklin and the French Revolution. In 1779 Marat was conducting his investigations in the nature of heat. Every paper when completed, and all the drawings and other illustrations of experiments, were immediately sent by him to Franklin with a request for his critical opinion. Several letters of this character, signed always "The Representative," are to be found among Franklin's papers.

Involved in controversy with the philosophers of France, Marat sought the powerful support of Franklin. Under date of April 12, 1779, he wrote: "Was it not so material a point to the Author, that a candid judgment should be passed upon his work, he would trust to time alone. But he is certain that many a Accademical gentleman do not look with pleasure upon his discoveries and will do their utmost to prejudice the whole Body. Let the cabal be ever so warm, it certainly will be silenced by the sanction of such a man as Doctor Franklin: and how far a judgment passed by himself and the Royal Academy can influence public opinion *is well known.*"

Franklin was one of the first in England to experiment with the production of cold by evaporation. Such experiments were first made in St. Petersburg, and were repeated in Great Britain by Dr. Cullen and Professor Hadley after Franklin had directed attention to the subject. In 1758 he visited the University of Cambridge and was entertained with great distinction by the vice-chancellor and the heads of colleges. He told Dr. Hadley, the Professor of Chemistry, that by wetting his thermometer with common spirits, he had brought the mercury down five or six degrees. Hadley proposed repeating the experiments with ether. "We accordingly," wrote Franklin to a correspondent in South Carolina, "went to his chamber, where he had both ether and a thermometer. By dipping first the ball of the thermometer into the ether, it appeared that the ether was precisely of the same temperament with the thermometer, which stood then at 65; for it made no alteration in the height of the little column of mercury. But, when the thermometer was taken out of the ether, and the ether, with which the ball was wet, began to evaporate, the mercury sunk several degrees. The wetting was then repeated by a feather that had been dipped into the ether, when the mercury sunk still lower. We continued this operation, one of us wetting the ball, and another of the company blowing on it with the bellows, to quicken the evaporation, the mercury sinking all the time, till it came down to 7, which is 25 degrees below the freezing point, when we left off. Soon after it passed the freezing point, a thin coat of ice began to cover the ball. Whether this was water collected and condensed by the coldness of the ball, from the moisture in the air, or from our breath; or whether the feather, when dipped into the ether, might not sometimes go through

it, and bring up some of the water that was under it, I am not certain; perhaps all might contribute.

"The ice continued increasing till we ended the experiment, when it appeared near a quarter of an inch thick all over the ball with a number of small *spicula*, pointing outwards. From this experiment one may see the possibility of freezing a man to death on a warm summer's day, if he were to stand in a passage through which the wind blew briskly and to be wet frequently with ether, a spirit that is more inflammable than brandy or common spirits of wine."[1]

Franklin's correspondence concerning astronomy was limited to an exchange of letters with Herschel and Maskelyne, the placing of orders for instruments with Edward Nairne and William Short, and the announcement of new discoveries and theories to David Rittenhouse, Humphry Marshall, and James Bowdoin.

William Herschel sent to Franklin, for The American Philosophical Society, a catalogue of one thousand new nebulæ and clusters of stars; and at the same time communicated the discovery, on the 11th of January, 1787, of "two satellites revolving round the Georgian planet, the first in about eight days and three quarters and the second in about twelve and a half." Franklin in reply congratulated Herschel on his discovery and said: "You have wonderfully extended the Power of human Vision and are daily making us acquainted with Regions of the Universe totally unknown to mankind in former Ages. Had fortune plac'd you in this part of America [Philadelphia] your Progress in these Discoveries might have been still more rapid, as from the more frequent clear-

[1] To John Lining, June 17, 1758.

ness of our Air, we have near one third more in the year of good observing Days than there are in England."[1]

To Nevil Maskelyne, as astronomer at the Greenwich Observatory, he transmitted the accounts sent by John Ewing of the Transit of Venus, and by Professor Winthrop of the Transit of Mercury (1769). A new comet swam into the ken of Nathan Pigot in his observatory in Yorkshire, November 19, 1783. Franklin received a report of it from Sir Joseph Banks, which he promptly transmitted (December 15, 1783) to David Rittenhouse. It was at this time that he offered a number of queries to James Bowdoin, and among them the following: "May not a magnetic power exist throughout our system, perhaps through all systems, so that if men could make a voyage in the starry regions, a compass might be of use? And may not such universal magnetism, with its uniform direction, be serviceable in keeping the diurnal revolution of a planet more steady to the same axis? Lastly, as the poles of magnets may be changed by the presence of stronger magnets, might not, in ancient times, the near passing of some large comet, of greater magnetic power than this globe of ours, have been a means of changing its poles, and thereby wrecking and deranging its surface, placing in different regions the effect of centrifugal force, so as to raise the waters of the sea in some, while they were depressed in others?" A letter to Humphry Marshall (February 14, 1773) contained a full description of the new hypothesis concerning sun-spots promulgated by Dr. Wilson, the professor of astronomy at Glasgow.

Nairne and Bird, in London, and Short, in Edinburgh, were employed by Franklin to make optical instruments for Bow-

[1] *Franklin to Dr. Herschel*, Philadelphia, May 18, 1787.

doin and Winthrop. The telescope made by Short for the latter cost one hundred pounds, and a transit instrument for the same person was made at a cost of forty guineas. Ellicot furnished the glasses for "the long Galilean telescope," which he presented to Harvard College. For Franklin's personal use, Nairne made a pocket achromatic telescope and "a set of artificial magnets, six in number, each five inches and a half long, half an inch broad, and one eighth of an inch thick." These were enclosed in a box of mahogany wood closed by a shutter of the same wood, the grain of which ran across the box, and "the ends of this shutting piece were bevelled so as to fit and slide in a kind of dovetail groove when the box was to be shut or opened." This was made in 1758. When Franklin returned to America in 1762, upon first attempting to open the box, he found that a notable shrinking had taken place in the wood of which it was made, although during four years in England it had not been visibly affected by moisture. In December, 1764, he went again to England and directly the box resumed its original size, and suffered no further alteration in ten years. It occurred to Franklin that there was here the material for making a slowly sensible hygrometer. He wrote to Nairne requesting him to take "a number of pieces of the closest and finest grained mahogany that you can meet with, plane them to the thinness of about a line, and the width of about two inches across the grain, and fix each of the pieces in some instrument that you can contrive, which will permit them to contract and dilate, and will show, in sensible degrees, by a moveable hand upon a marked scale, the otherwise less sensible quantities of such contraction and dilatation. If these instruments are all kept in the same place while making,

and are graduated together while subject to the same degrees of moisture or dryness, I apprehend you will have so many comparable hygrometers which, being sent into different countries, and continued there for some time, will find and show there the mean of the different dryness and moisture of the air of those countries, and that with much less trouble than by any hygrometer hitherto in use." Nairne, in accordance with the suggestion, constructed such an instrument, the drawings of which he sent to Franklin on the 2d of December, 1783.

It was not possible for Franklin to go far in astronomy, as he was not sufficiently furnished with a knowledge of mathematics. And yet even here his mind sought occasional diversion in the severe charms of numbers. He was visiting one day, at Stenton, the country home of James Logan, when that venerable scholar, who in the previous century would have been called "a gulf of learning," took from his crowded shelves a folio French book filled with magic squares, and remarked upon the great ingenuity and dexterity of M. Frenicle, the author. Franklin characteristically said that "it was perhaps a mark of the good sense of our English mathematicians that they would not spend their time in things that were merely *difficiles nugæ*, incapable of any useful application." Logan thought that such practice was likely to produce an habitual readiness and exactness in mathematical disquisitions and so might be of real use. Franklin then admitted that he had amused his idleness in making this kind of squares. The next time he visited Logan, he showed him a square of eight which he had found among his old papers. Logan then showed him an old arithmetical book in quarto, written by Stifelius, which con-

tained a square of sixteen that he said he should imagine must have been a work of great labour. Not willing to be outdone by Stifelius, even in the size of his square, Franklin went home and made that evening a magical square of sixteen, having such remarkable properties that Logan in amazement called it "thy astonishing or most stupendous piece of the magical square." Indeed, said Franklin, it must doubtless be admitted "to be the most magically magical of any magic square ever made by any magician." [1]

The curiosity of mathematicians in various parts of the world was awakened by these revelations of the surprising properties of numbers placed in squares and circles. When a deputation from Rouen met him to welcome him to their city, they presented him with a magic square that spelled his name.

The remarkable mathematician James Ferguson paid a high tribute to Franklin's ingenuity. He said: "I have seen several different kinds of (what is generally called) magic squares; but have lately got a magic square of squares and a magic circle of circles of a very extraordinary kind, from Dr. Benjamin Franklin of Philadelphia with his leave to publish them. The magic square goes far beyond anything of the kind I ever saw before; and the magic circle (which is the first of the kind I ever heard of, or perhaps any one besides) is still more surprising. What the Doctor's rules are, for disposing of the different numbers so as that they shall have the following properties I know nothing of: and perhaps the reason may be, that I have not ventured to ask

[1] The magical square and the magical circle will be found entered in the year 1750, and addressed to Peter Collinson.

ıim; although I never saw a more communicative man in ny life." [1]

And yet he felt rather ashamed to have it known that he ad spent any part of his time in an employment that could ot possibly be of any use to himself or others. He is for- ver counting the cost and weighing the practical benefit. Vhat good will it do? Of what use is it? These are the ɔuchstones by which he tries all problems. After his inter- sting series of experiments upon the effects of the sun's rays pon cloths of different colours (see letter to Miss Steven- on, September 20, 1761), he concludes: "What signifies hilosophy that does not apply to some use? May we not earn from hence, that black clothes are not so fit to wear in . hot, sunny climate or season as white ones; because in uch clothes the body is more heated by the sun when we walk abroad, and are at the same time heated by the exer- ise, which double heat is apt to bring on putrid dangerous evers? That soldiers and seamen who must march and abour in the sun should in the East or West Indies have an ıniform of white? That summer hats, for men or women should be white, as repelling that heat which gives head- aches to many and to some the fatal stroke that the French call the *coup de soleil?* That the ladies' summer hats, how- ever, should be lined with black, as not reverberating on their faces those rays which are reflected upwards from the earth or water? That the putting a white cap of paper or linen within the crown of a black hat, as some do, will not keep out the heat, though it would if placed *Without?* That fruit

[1] "Tables and Tracts relative to several Arts and Sciences. By James Ferguson, F.R.S., London, 1767," p. 309. See also Sir Frederick Pollock, "Philosophical Transactions," Vol. CXLIV, No. XIV, and Vol. CXLIX, No. III.

walls being blacked may receive so much heat from the sun in the daytime as to continue warm in some degree through the night, and thereby preserve the fruit from frosts or forward its growth? — With sundry other particulars of less or greater importance that will occur from time to time to attentive minds?"

When he narrowly escaped shipwreck and death upon the Cornish rocks near Falmouth Harbor, he wrote to his wife: "Were I a Roman Catholic perhaps I should on this occasion vow to build a chapel to some saint; but as I am not, if I were to vow at all it should be to build a lighthouse."

The happiness of life, he was wont to say, depends upon its seemingly insignificant utilities; thus, "if you teach a poor young man to shave himself and keep his razor in order you may contribute more to the happiness of his life than in giving him one thousand guineas."

It is better worth while, he said, to bring back from Italian travel a receipt for Parmesan cheese, than copies of ancient historical inscriptions.

Thorough utilitarian as he was, he knew too well the possibilities that lie perdue in the most unpromising and unlikely subjects to decry the sober investigation of seemingly useless and fantastic problems. When he began his inquiry into mesmerism, his old friend George Whatley wrote to him (September 20, 1784): "If the *Courrier de l'Europe* say true you have been desired by S. M. très Chrétienne to look into the business of magnetism. Who more fitting? I shall never forget your rebuke for my calling my poor gone and good friend Ellis one of the *Conundri* for labouring about the Keratophita, Coralides, and the Lord knows what, when, hereafter, such Pretenders might be of service to Mankind,

as the Loadstone is understood to have been, several hundreds of years after its property of attracting iron was discovered."

When aëronautics were in their infancy, and Montgolfier was beginning his balloon ascensions, some one said, "What is the use of a balloon?" Franklin replied, "What is the use of a new-born baby?" He took at once an active interest in the new experiments, and carried on an elaborate correspondence with Sir Joseph Banks, President of the Royal Society, minutely describing various ascensions. He attended the experiment made November 20, 1783, in the garden of the Queen's Palace, *la muette*, then the residence of the Dauphin, and sent a copy of the *Procès verbal* to Banks with his own explanatory and critical notes. "The balloon was larger than that which went up from Versailles, and carried the sheep, etc. Its bottom was open, and in the middle of the opening was fixed a kind of basket grate in which faggots and sheaves of straw were burnt. The air, rarefied in passing through this flame, rose in the balloon, swelled out its sides, and filled it. The persons who were placed in the gallery made of wicker and attached to the outside near the bottom, had each of them a post through which they could pass sheaves of straw into the grate to keep up the flame, and thereby keep the balloon full. When it went over our heads we could see the fire which was very considerable. As the flame slackens the rarefied air cools and condenses, the bulk of the balloon diminishes, and it begins to descend. If these in the gallery see it likely to descend in an improper place they can, by throwing on more straw and renewing the flame, make it rise again and the wind carries it farther." [1] The courageous philosophers

[1] Franklin to Sir Joseph Banks, Passy, November 21, 1783.

who safely accomplished this feat, Marquis d'Arlandes and M. Montgolfier, called upon Franklin the evening after the experiment to report to him their experiences and to receive his criticisms and suggestions. Sir Joseph Banks replying to Franklin said: "I laughed when balloons of scarce more importance than soap bubbles occupied the attention of France, but when men can with safety pass and do pass more than five miles in the first experiment I begin to fancy that I espy the hand of the master in the education of the infant of knowledge who so speedily attains such a degree of maturity, and do not scruple to guess that my old friend who used to assist me when I was younger has had some share in the success of this enterprise" (November 25, 1783).

In France the ascensions attracted much attention. Great crowds assembled to watch the aërial explorers take flight. It is said that three hundred thousand witnessed the first ascent in Paris from the Champs de Mars, on August 27, 1783. When Professor Charles's second balloon made its successful ascent, December 1, 1783, Franklin wrote: "Notice having been given of the intended experiment several days before in the Papers, so that all Paris was out, either about the Tuilleries, on the Quays and Bridges, in the Fields, the Streets, at the Windows, or on the Tops of Houses, besides the Inhabitants of all the Towns and Villages of the Environs. Never was a Philosophical Experiment so magnificently conducted." It was upon this occasion that the Duke of Cumberland was nearly pressed to death in the throng, and that Joseph Cradock saw the queen of France observing the ascension from a balcony of the Tuileries, and remarked that she looked like a very handsome English woman.[1]

[1] *J. Cradock*, "Memoirs," Vol. II, p. 84. London, 1828.

Many inventors attempted to devise dirigible airships, and ;veral papers descriptive of such inventions are to be seen nong Franklin's papers — "sur divers moyens de diriger s Aérostats." Among the rest, Henry Smeathman made a iscovery which, to use his own words, depended upon a kind f paradox, "which is that animals could not fly if they were ghter than air, — they would float with the wind, — it is by ıeans of their gravity that they project themselves through ıe air, and it is always on *inclined planes.* This is most ident in birds of prey; they make long sallies upon one ıclined plane, and when they oppose their wings to the air, ı one of their rapid descents, they are suddenly thrown up- ards again by the elasticity of it." This account Smeath- ıan gave to Franklin, who, upon hearing it, "launched alf a sheet of paper obliquely in the air, observing that hat was an evident proof of the propriety of my doc- rines." [1]

Franklin was greatly interested in the improvement of the ıalloon in France, and in transmitting to Sir Joseph Banks 'the journal of the first aërial voyage performed by man," he emarked that but a few months before witches riding on a ıroomstick and philosophers upon a bag of smoke would ıave appeared equally incredible. But he was disappointed n the little interest taken in aëronautics in England, and vrote to Banks (November 21, 1783): "We should not suffer ıride to prevent our progress in Science. Beings of a rank nd nature far superior to ours have not disdained to amuse ıemselves with making and launching balloons, otherwise e should never have enjoyed the light of those glorious bjects that rule our day and night, nor have had the Pleas-

[1] Pettigrew's "Life of Lettsom," Vol. II, p. 280.

ure of riding round the Sun ourselves upon the Balloon we now inhabit."

The practical benefits of aëronatics which Franklin saw in the distance are best expressed in a letter to Ingenhousz, January 16, 1786. "It appears as you observe to be a discovery of great importance, and what may possibly give a new turn to human affairs. Convincing sovereigns of the folly of wars may perhaps be one effect of it; since it will be impracticable for the most potent of them to guard his dominions. Five thousand balloons, capable of raising two men each, could not cost more than five ships of the line; and where is the prince who can afford so to cover his country with troops for its defense, as that ten thousand men descending from the clouds might not in many places do an infinite deal of mischief before a force could be brought together to repel them?" So it seems that Franklin, like Tennyson, —

". . . Dipt into the future, far as human eye could see
Saw the Vision of the world, and all the wonder that would be;

Saw the heavens fill with commerce, argosies of magic sails,
Pilots of the purple twilight, dropping down with costly bales;

Heard the heavens fill with shouting, and there rained a ghastly dew
From the nations' airy navies grappling in the central blue."

For a child of the eighteenth century, Franklin was an unusual traveller. He found that his health was improved by frequent change of scene and air, and the exigencies of his public career, as postmaster and diplomatic agent, occasioned frequent and distant journeys. He crossed the Atlantic Ocean eight times, and improved the restful monotony of his voyages by making studies in navigation. He investigated the Gulf Stream,[1] sought the reason for the differenc

[1] Franklin to David Le Roy, August, 1785.

of navigation in shoal and deep water,[1] wrote upon the saltness of sea-water,[2] and how it could be rendered fresh by distillation,[3] on the Bristol waters and the tide in rivers,[4] made observations on the sails and cables of vessels, and the means of preserving ships from accidents at sea.[5]

The Gulf Stream Franklin conjectured to be generated by the great accumulation of water on the eastern coast of America between the tropics by the trade winds which constantly blow there. "It is known that a large piece of water ten miles broad and generally only three feet deep has by a strong wind had its waters driven to one side and sustained so as to become six feet deep, while the windward side was laid dry. This may give some idea of the quantity heaped on the American coast, and the reason of its running down in a strong current through the islands into the bay of Mexico, and from thence issuing through the Gulf of Florida, and proceeding along the coast to the banks of Newfoundland, where it turns off towards and runs down through the Western Islands."

Franklin took constant thermometrical observations upon crossing the stream, and in his letter to David Le Roy, August, 1785, thoroughly defined the theory of the stream and the advantages of a knowledge of it to the mariner.

Among his practical suggestions with regard to the security of ships at sea, it should be remembered that he first

[1] To Sir John Pringle, May 10, 1768.

[2] To Peter Franklin, May 7, 1760.

[3] To Miss Mary Stevenson, August 10, 1761.

[4] To Miss Mary Stevenson, September 13, 1760.

[5] To David Le Roy, August, 1785. The American Philosophical Society, December 2, 1785.

suggested the use of water-tight compartments, now universally in use in the larger vessels of the navy and of passenger traffic, and that he invented the double and triple ship wrought with wheels, although Sir John Dalrymple in his "Memoirs" (Appendix, page 7) gives the credit to the inventor of the carronade.[1]

The last invention in which Franklin was interested was Fitch's steamboat, and Fitch, when ready for a trial of his new invention, wrote to Franklin (October 12, 1785), "Nothing would give me more secret pleasure than to make an essay under your patronage."

It was at one time Franklin's belief that the longer voyages of vessels sailing westward across the Atlantic could be accounted for by the diurnal motion of the earth, and he exploited this theory in a letter to Cadwallader Colden. It is also referred to in the more elaborate paper upon "Maritime Observations" sent to David Le Roy. After a few years Franklin realized that he was entirely at fault in this regard. Jonathan Williams wrote to him asking permission to print the latter paper in the transactions of the American Academy of Arts and Sciences. He replied: "It will not be proper to present that nautical piece to your Academy, it being already in the possession of the Philosophical Society here who have ordered it to be printed in their Memoirs and it is now in the Press. It may however be read there if you think it will be agreeable; only I would have the part struck out relating to the expediting and retarding the voyages between North America and England by the diurnal motion being on consideration convinced that its effect is equal both

[1] Professor Anderson, of Glasgow University, in a letter to Franklin (February 20, 1788), protests against this statement in Dalrymple's "Memoirs."

ways."[1] I have therefore omitted the letter of unknown date addressed to Cadwallader Colden (printed in Sparks, Vol. VI, p. 74, and Bigelow, Vol. II, p. 14) and the paragraph relating to this mistaken theory in the "Maritime Observations."

In 1746 Franklin purchased three hundred acres of land near Burlington, New Jersey, and set about improving it in the best and speediest manner. His experiments in the culture of grass in meadows, and his inquiries respecting the mode of planting hedges, were communicated in letters to Jared Eliot, grandson of "Apostle" Eliot, and author of "An Essay on Field Husbandry in New England."

His sagacity and clearness of vision are as evident here as in the greater things of his life. Eighty acres of his land were deep meadow. It had been ditched and planted with Indian corn, of which it produced above sixty bushels per acre. How did Franklin proceed? "I first scoured up my ditches and drains, and took off all the weeds; then I ploughed it, and sowed it with oats in the last of May. In July I mowed them down, together with the weeds, which grew plentifully among them, and they made good fodder. Immediately ploughed it again, and kept harrowing till there was an appearance of rain; and on the 23d of August, I sowed near thirty acres with red clover and herd grass, allowing six quarts of herd grass and four pounds of red clover to an acre in most parts of it; in other parts four quarts herd grass and three pounds red clover. The red clover came up in four days, and the herd grass in six days; and I now find, that, where I allowed the most seed, it protects itself the better against the frost. I also sowed an acre with twelve pound of red clover and it

[1] To Jonathan Williams, Philadelphia, January 19, 1786. Letter in possession of Louis A. Biddle, Esq.

does well; I sowed an acre more with two bushels of rye-grass seed and five pound of red clover; the rye-grass seed failed, and the red clover heaves out much for want of being thicker. However in March next I intend to throw in six pounds more of red clover as the ground is open and loose. As these grasses are represented not durable, I have sown two bushels of the sweeping of hay lofts (where the best hay was used), well riddled, per acre, supposing that the spear-grass and white clover seed would be more equally scattered when the other shall fail. What surprised me was to find, that the herd-grass, whose roots are small and spread near the surface, should be less affected by the frost than the red clover whose roots I measured in the last of October, and found that many of their tap roots penetrated five inches, and from its sides threw out near thirty horizontal roots, some of which were six inches long and branched. From the figure of this root, I flattered myself that it would endure the heaving of the frost; but I now see, that wherever it is thin sown it is generally hove so far out as that but a few of the horizontal and a small part of the tap roots remain covered and I fear will not recover. Take the whole together it is well matted and looks like a green corn field." [1]

Franklin carried on correspondence with many distinguished botanists. He secured for John Bartram his appointment as American botanist to George III. He sent him rare seeds from Europe, and when in America rendered the same service to Buffon for the Jardin des Plantes. He was the first to introduce rhubarb into America.[2] It is also said that the introduction of the yellow willow was due to

[1] To Jared Eliot, of unknown date, *circa* 1749.
[2] To John Bartram, August 22, 1772.

him. The story is that a basket in which some foreign commodity had been imported, having been thrown into a creek, was observed by Franklin to be putting forth sprouts, several of which he caused to be planted on the ground now occupied by the Philadelphia Custom House. They took root, and proved to be the yellow willow.[1]

He urged the adoption of plaster of Paris as a fertilizer, and as an object lesson to the Pennsylvanian farmers wrote with plaster in a field on the high road, in large letters, "THIS HAS BEEN PLASTERED." The white letters quickly vanished but soon reappeared in emerald, showing in brilliant contrast to the grass of the general surface.[2]

Franklin was able to assist European scholars in their studies of the native languages of America and the ethnology and archæology of the country. His letter to Court de Gébelin (May 7, 1781) shows his understanding of the differentiation of the native linguistic stocks; and by M. de Gébelin, one of the first of the illustrious line of *Americanistes* in France, he was treated as a "fellow-worker," and consulted frequently while the nine volumes of "Le Monde primitif" were going through the press.

George Croghan sent to him a box of what he supposed to be elephants' tusks and grinders found near the Ohio River. Franklin's letter of acknowledgment and thanks is worthy of consideration, for the modern character of his views is surprising. He found the tusks extremely curious on many accounts. He could not believe them to belong to elephants, for the grinders were "full of knobs, like the grinders of a carnivorous animal; while those of the elephant, who eats only vegetables, are almost smooth. But

[1] Watson's "Annals of Philadelphia," Vol. II, p. 487.

[2] Chaptal's "Agricultural Chemistry," p. 73.

then," he added, "we know of no other animal with tusks like an elephant, to whom such grinders might belong." It was remarkable to him that elephants now inhabit naturally only hot countries where there is no winter, and yet these remains were found in a winter country. He remembered, also, that similar tusks were found in Siberia in great quantities when their rivers overflow and wash away the earth, though Siberia is still more a wintry country than that on the Ohio. From which he inferred that "the earth had anciently been in another position, and the climates differently placed from what they are at present." The historical interest of this letter becomes apparent when it is remembered that it was written thirty years before Thomas Jefferson read before The American Philosophical Society his paper upon the fossilized bones of some large quadruped of the sloth family, an event which is commonly taken to mark the beginning of the study of vertebrate palæontology in America. Moreover, this discussion of the "elephant question" was fifty-eight years before Cuvier had given the name of *mastodon* to the animal whose tusks and grinders were so puzzling to Franklin. The foremost living palæontologist of America, Professor William B. Scott, of Princeton, says of this letter: "Franklin's opinions are nearer to our present beliefs than were Jefferson's, written nearly forty years later. Of course, we now know that Franklin was mistaken in supposing that such bones were found only in what is now Kentucky and in Peru, and his comparison of the teeth of the mastodon with the 'grinders of a carnivorous animal' is not very happy, but the inferences are remarkably sound, when we consider the state of geological knowledge in 1767."[1]

[1] See Franklin to Croghan, August 5, 1767.

We now come to the really great achievements of Franklin in science. In the study of electricity he was a pioneer. He was a man of the frontier and greatly widened the boundaries of knowledge. It was in 1746 that Peter Collinson sent a Leyden vial to Philadelphia as a present to the Library Company. The first electrical experiments Franklin had ever witnessed had been performed by Dr. Spence, a Scotchman, in Boston, a few months before. His curiosity had been keenly aroused, and he now proceeded with eagerness to repeat in Philadelphia the experiments which had so surprised and interested him. Speaking of them in the Autobiography, he says: "My house was continually full for some time with persons who came to see these new wonders. To divide a little this incumbrance among my friends, I caused a number of similar tubes to be blown at our glass house, with which they furnished themselves, so that we had at length several performers. Among these the principal was Mr. Kinnersley an ingenious neighbor, who, being out of business, I encouraged to undertake showing the experiments for money, and drew up for him two lectures in which the experiments were rang'd in such order and accompanied with explanations in such method as that the foregoing should assist in comprehending the following. He procured an elegant apparatus for this purpose, in which all the little machines that I had roughly made for myself were neatly formed by instrument makers."

Concerning these experiments Franklin wrote letters to Collinson, thinking it right that he should be informed of their success in using the tube he had presented to them. These are the letters that Collinson saw fit to publish, and which at once carried Franklin's name across the continent

of Europe. In the first letter (July 11, 1747), he wrote: "We rub our tubes with buckskin and observe always to keep the same side to the tube and never to sully the tube by handling; thus they work readily and easily, without the least fatigue, especially if kept in tight pasteboard cases, lined with flannel and fitting close to the tube." The tubes, he says, were made of green glass, twenty-seven or thirty inches long, "as big as can be grasped." Parts of several machines are known which are reputed to have belonged to Franklin, but the precise form of the complete apparatus used by him appears to be in doubt. Professor George Barker says: "Three or four quite similar frames are in existence, all provided with multiplying wheels for giving rotation to the electric used, which was mounted upon an axis placed above the wheel. One of these frames is in possession of the Franklin Institute, another is owned by the University of Pennsylvania, and a third is in the physical cabinet of the College of New Jersey, at Princeton. In only the first of these, however, is the electrical portion preserved. The electric is a glass globe, having a leather cushion for its rubber, and provided with a curved rod for the collector. Moreover, these frames or stands all resemble very closely that which is described and figured as 'the cylindrical machine as constructed by Franklin' in Snow Harris's 'Frictional Electricity.'"[1]

Among the Franklin relics long preserved at Champlost, the home of George Fox, were several pieces of electrical

[1] Professor George F. Barker, "Electrical Progress since 1743," in the Proceedings of The American Philosophical Society, Philadelphia, 1894, p. 107. The work to which Professor Barker refers is "A Treatise on Frictional Electricity in Theory and Practice, by Sir William Snow Harris, F.R.S., London, 1867," p. 104.

apparatus which, in 1879, were presented by Miss Fox to the University of Pennsylvania. One of them was the "prime conductor," or collector, of an electrical machine, and could have been used only with a machine provided with a plate electric. The earliest electrical machine was made in 1672 by Von Guericke, who performed the Magdeburg experiments. The electric consisted of a globe of sulphur, mounted on a horizontal axis and rubbed with the hand. Hawksbee (1709) replaced the sulphur globe by one of glass. Franklin thus speaks of his electrical machine: "Our spheres are fixed on iron axes which pass through them. At one end of the axis there is a small handle with which you turn the sphere like a common grindstone. This we find very commodious, as the machine takes up but little room, is portable and may be enclosed in a tight box when not in use. 'Tis true the sphere does not turn so swift as when the great wheel is used; but swiftness we think of little importance, since a few turns will charge the vial sufficiently." The credit of the contrivance of this machine Franklin gives to Philip Syng, a member of the Junto.

One year's experimentation with the newly contrived apparatus and Franklin had mastered the theory and practice of electrical science. In his first letter to Collinson (July 11, 1747) he describes an experiment showing "the wonderful effect of pointed bodies both in *drawing off* and *throwing off* the electrical fire." This letter is of the first importance in the history of science, for it propounds his new theory of electricity. He electrified a cannon ball so that it repelled a cork. When the point of a long, slender bodkin was brought within six or eight inches distance, the repulsion disappeared. A blunt body, however, had to be brought near enough for a

spark to pass before the same effect was produced. "To prove that the electrical fire is *drawn off* by the point, if you take the blade of the bodkin out of the wooden handle, and fix it in a stick of sealing-wax and then present it at the distance aforesaid, or if you bring it very near, no such effect follows; but sliding one finger along the wax till you touch the blade, and the ball flies to the shot immediately. If you present the point in the dark, you will see, sometimes at a foot distance and more, a light gather upon it, like that of a fire-fly, or glow-worm; the less sharp the point, the nearer you must bring it to observe the light; and, at whatever distance you see the light, you may draw off the electrical fire, and destroy the repellency."

By laying a long sharp needle upon the shot, Thomas Hopkinson and Franklin showed "that points will *throw off* as well as *draw off* the electrical fire." Continuing his experiments, he found that the repellency between the cork ball and the shot is likewise destroyed: "1, by sifting fine sand on it; this does it gradually; 2, by breathing on it; 3, by making a smoke about it from burning wood; 4, by candle light, even though the candle is at a foot distance: these do it suddenly. The light of a bright coal from a wood fire; and the light of red hot iron do it likewise; but not at so great a distance. Smoke, from dry rosin dropped on hot iron, does not destroy the repellency; but is attracted by both shot and cork ball, forming proportionable atmospheres round them, making them look beautifully, somewhat like some of the figures in Burnet's or Whiston's 'Theory of the Earth.' N. B. This experiment should be made in a closet, where the air is very still or it will be apt to fail.

"The light of the sun thrown strongly on both cork and

shot by a looking-glass for a long time together, does not impair the repellency in the least. This difference between firelight and sunlight is another thing that seems new and extraordinary to us." He was greatly puzzled and thought long and deeply over this "new and extraordinary difference." In a footnote he offered an explanation which shows that Franklin was the discoverer of the action of flames as well as of the discharging properties of red-hot iron: "This different effect probably did not arise from any difference in the light, but rather from the particles separated from the candle, being first attracted and then repelled, carrying off the electric matter with them; and from the rarefying the air, between the glowing coal or red hot iron and the electrized shot, through which rarefied air the electric fluid could more readily pass." No other mind as acute as Franklin's existed in the world at that time, and the discovery seems to have been forgotten for one hundred and twenty-six years, when it was rediscovered by Guthrie in 1873.[1]

Professor Schuster calls attention to the experiment intended to try the action of sunlight, and says, "Had Franklin used a clean piece of zinc instead of iron shot he might have anticipated Hertz's discovery of the action of strong light on the discharge of gases."

He had now learned that the electricity from a highly charged conductor could be dissipated by a sharp point or neutralized if the point was connected with earth or brought near the conductor so as to be electrified by induction. His next discovery was that if the person rubbing the electric

[1] Arthur Schuster, "On some Remarkable Passages in the Writings of Benjamin Franklin." Manchester, 1895. See also, Guthrie, *Philosophical Magazine*, XLVI, p. 257.

tube stood upon wax, and the person drawing the fire also stood upon wax, a stronger spark would pass between them than between either of them and the earth; and that after such strong spark neither of them would discover any electricity, though each had appeared electrified before. He had thus conceived the idea of *positive* and *negative* electrification: "Hence have arisen some new terms among us; we say B (and bodies like circumstanced) is electrized *positively;* A *negatively.*[1] Or rather B is electrized *plus;* A *minus.* And we daily in our experiments electrize bodies *plus* or *minus*, as we think proper. To electrize *plus* or *minus*, no more needs to be known than this, that the parts of the tube or sphere that are rubbed, do, in the instant of the friction, attract the electrical fire, and therefore take it from the thing rubbing; the same parts immediately, as the friction upon them ceases, are disposed to give the fire they have received to any body that has less. Thus you may circulate it, as Mr. Watson has shown; you may also accumulate or subtract it, upon or from any body, as you connect that body with the rubber, or with the receiver, the communication with the common stock being cut off." Electricity, therefore, was regarded by Franklin as a fluid, a certain amount of which was possessed by everything in its normal state. By appropriate means some of the fluid could be drawn away from one body and given to another. The former is then electrified negatively, the latter positively. The electric fluid, he conceived, repelled itself and attracted matter. The single-fluid theory was completed when the supposition was added that matter when devoid of electricity is self-repulsive.

[1] A represents the one who stands on the cake of resin and rubs the electric tube; B, the one who takes the charge from the tube.

In experimenting with Muschenbroek's "wonderful bottle," the Leyden jar (which Franklin improved by substituting granulated lead for the water which had been used for the interior armatures), he saw that "at the same time that the wire and the top [the inner armature] is electrized *positively* or *plus*, the bottom of the bottle [outer armature] is electrized *negatively* or *minus* in exact proportion; that is, whatever quantity of electrical fire is thrown in at the top, an equal quantity goes out of the bottom. . . . Again, when the bottle is electrized, but little of the electrical fire can be *drawn out* from the top, by touching the wire, unless an equal quantity can at the same time *get in* at the bottom. . . . So wonderfully are these two states of electricity, the *plus* and the *minus* combined and balanced in this miraculous bottle! situated and related to each other in a manner that I can by no means comprehend! If it were possible that a bottle should in one part contain a quantity of air strongly compressed, and in another part a perfect vacuum, we know the equilibrium would be instantly restored *within*. But here we have a bottle containing at the same time a *plenum* of electrical fire, and a *vacuum* of the same fire; and yet the equilibrium cannot be restored between them, but by a communication *without!* though the *plenum* presses violently to expand, and the hungry *vacuum* seems to attract as violently in order to be filled." [1]

He tried numerous experiments with these jars or "phials" as they were called. He charged them by cascade, "that is, by insulating all the jars except the last, connecting the outer armature of the first with the inner armature of the second, and so on throughout the series . . . and he knew too that

[1] To Peter Collinson, September 1, 1747.

by this method the extent to which each jar could be charged from a given source varied inversely as the number of jars" (Garnett). He discharged the phial by alternate contacts; he placed it upon an insulating stand, and found that it might be held by the hook without discharging it. "When we use the terms of *charging* and *discharging* the phial, it is in compliance with custom, and for want of others more suitable. Since we are of opinion that there is really no more electrical fire in the phial after what is called its *charging* than before, nor less after its *discharging;* excepting only the small spark that might be given to and taken from the non-electric matter, if separated from the bottle, which spark may not be equal to a five-hundredth part of what is called the explosion." [1]

"The phial will not suffer what is called a *charging* unless as much fire can go out of it one way as is thrown in by another." [1]

"When a bottle is charged in the common way its *inside* and *outside surfaces* stand ready, the one to give fire by the hook, the other to receive it by the coating; the one is full and ready to throw out, the other empty and extremely hungry; yet, as the first will not *give out* unless the other can at the same instant *receive in,* so neither will the latter receive in, unless the first can at the same instant give out. When both can be done at once, it is done with inconceivable quickness and violence." [1]

He was the first to prove that the phenomena of condensation have their seat in the dielectric, and not in the metallic coatings. "The whole force of the bottle and power of giving a shock," he says, "is in the *glass itself;*

[1] To Peter Collinson, Philadelphia, 1748.

the non-electrics in contact with the two surfaces, serving only to *give* and *receive* to and from the several parts of the glass; that is, to give on one side and take away from the other." After performing many interesting and convincing experiments, graphically described in his letter to Collinson (Philadelphia, 1748), he continues: "It is amazing to observe in how small a portion of glass a great electrical force may lie. A thin glass bubble, about an inch diameter, weighing only six grains, being half filled with water, partly gilt on the outside, and furnished with a wire hook, gives, when electrified, as great a shock as a man can well bear. As the glass is thickest near the orifice, I suppose the lower half, which, being gilt, was electrified and gave the shock, did not exceed two grains; for it appeared, when broken, much thinner than the upper half. . . . And allowing that there is no more electrical fire in a bottle after charging than before, how great must be the quantity in this small portion of glass! It seems as if it were of its very substance and essence. Perhaps if that due quantity of electrical fire so obstinately retained by glass, could be separated from it, it would no longer be glass; it might lose its transparency, or its brittleness, or its elasticity. Experiments may possibly be invented hereafter to discover this."

Thus in a twelvemonth of ingenious experiments and close observation Franklin had demonstrated the electrical condition of the Leyden jar, dismissed the Dufay hypothesis of vitreous and resinous electricity, and established his single-fluid theory. He conceived that there is but one electric fluid, the positive, while the part of the other is taken by ordinary matter, the particles of which are supposed to repel each other and attract the positive fluid. "Matter

when unelectrified is supposed to be associated with just so much of the electric fluid that the attraction of the matter on a portion of the electric fluid outside is just sufficient to counteract the repulsion exerted on the same fluid by the electric fluid associated with the matter" (J. J. Thomson). Nowhere is the antique proverb *vestigia nulla retrorsum* so true as in the history of science: —

"Science moves, but slowly, slowly, creeping on from point to point."

But the history of electrical theory is an extraordinary exception. After a hundred and fifty years the world is returning at the present moment to the amazing generalization made by Franklin. "We shall I am sure be struck," says Professor J. J. Thomson in one of the most recent contributions to the literature of electricity, "by the similarity between some of the views which we are led to take by the results of the most recent researches, with those enunciated by Franklin in the very infancy of the subject." [1] And Dr. William Garnett says of the statements in Franklin's first letters to Collinson, "They are perfectly consistent with the views held by Cavendish and by Clerk Maxwell, and though the phraseology is not that of modern text-books, the statements themselves can hardly be improved upon to-day." [2]

The second striking conclusion at which Franklin arrived was the identity of electricity and lightning. To illustrate the action of a lightning conductor on a thunder-cloud he took a pair of large brass scales, of two or more feet beam, the cords of the scales being silk, and suspended the

[1] "Electricity and Matter, by J. J. Thomson. Constable & Co., 1904." p. 6.
[2] "Heroes of Science, by William Garnett. London [1885]." p. 79.

beam by a twisted packthread from the ceiling. Upon the floor he set a silversmith's iron punch in such a place as that the scales might pass over it in making their circle. He electrified one scale. "As they move round you see that one scale draw nigher to the floor, and dip more when it comes over the punch; and if that be placed at a proper distance, the scale will snap and discharge its fire into it. But if a needle be stuck on the end of the punch, its point upward, the scale instead of drawing nigh to the punch, and snapping, discharges its fire silently through the point, and rises higher from the punch. . . . Now if the fire of electricity, and that of lightning be the same as I have endeavoured to show at large in a former paper, these scales may represent electrified clouds. . . . The horizontal motion of the scales over the floor may represent the motion of the clouds over the earth; and the erect iron punch, a hill or high building; and then we see how electrified clouds passing over hills or high buildings at too great a height to strike, may be attracted lower till within their striking distance. And lastly if a needle fixed on the punch with its point upright, or even on the floor below the punch, will draw the fire from the scale silently at a much greater than the striking distance, and so prevent its descending toward the punch; or if in its course it would have come nigh enough to strike, yet being first deprived of its fire it cannot, and the punch is thereby secured from the stroke." [1]

"To determine the question," he says, "whether the clouds that contain lightning are electrified or not, I would propose an experiment to be tried where it may be done conveniently. On the top of some high tower or steeple,

[1] To Peter Collinson, July 29, 1750.

place a kind of sentry box, big enough to contain a man and an electrical stand. From the middle of the stand let an iron rod rise and pass, bending, out of the door and then upright twenty or thirty feet, pointed very sharp at the end. If the electrical stand be kept clean and dry, a man standing on it, when such clouds are passing low, might be electrified and afford sparks, the rod drawing fire to him from a cloud. If any danger to the man might be apprehended (though I think there would be none) let him stand on the floor of this box and now and then bring near to the rod the loop of a wire that has one end fastened to the leads, he holding it by a wax handle; so the sparks, if the rod is electrified, will strike from the rod to the wire, and not affect him."

M. Dalibard, who at the request of Buffon had made a translation into French of Franklin's letters to Collinson, placed in a garden at Marly-la-Ville, six leagues from Paris, a pointed rod of iron forty feet high supported upon an electrical stand. In the afternoon of the 10th of May, 1752, between two and three o'clock, a thunder-cloud passed over it and sparks were drawn from it by the observers with whom Dalibard had left directions how to proceed. The same kind of commotions were perceived as in the common electrical experiments.[1]

A week later (May 18) M. de Lor, sensible of the good success of this experiment, resolved to repeat it at his house in the Estrapade, at Paris. He raised a bar of iron ninety-nine feet high placed upon a cake of resin two feet square

[1] Letter of Abbé Mazéas to Stephen Hales, May 20, 1752; read at the Royal Society, May 28, 1752; "New Experiments and Observations on Electricity," p. 107.

and three inches thick. Between four and five in the afternoon a storm cloud having passed over the bar, where it remained half an hour, he drew sparks from the bar like those from the gun-barrel, when in the electrical experiments the globe is only rubbed by the cushion, and they produced the same noise, the same fire, and the same crackling. They drew the strongest sparks at the distance of nine lines. M. de Lor, master of experimental philosophy, had previously performed "the Philadelphian experiments" by command of Louis XV, in the presence of the king at the seat of the Duc d'Ayen at St. Germain. His Majesty saw them with great satisfaction and greatly applauded Franklin and Collinson.

On the 20th of July, 1752, John Canton, a Fellow of the Royal Society, erected upon his house in Spital Square, London, a tin tube between three and four feet in length fixed to the top of a glass one of about eighteen inches. To the upper end of the tin tube, which was not so high as a stack of chimneys on the same house, he fastened three needles with some wire, and to the lower end was soldered a tin cover to keep the rain from the glass tube, which was set upright in a block of wood. No electrification appeared upon this apparatus during the storm, which arose about five in the afternoon, until after the third thunder-clap, when Canton, applying his knuckle to the edge of the cover, felt and heard an electrical spark; and approaching it a second time received the spark at the distance of about half an inch and saw it distinctly.

Further observations were made on the 12th of August by another member of the Royal Society, Mr. Wilson, in a garden at Chelmsford in Essex. He used an iron curtain

rod, one end of which he put into the neck of a glass vial, and held this vial in his hand. To the other end of the iron he fastened three needles with some silk. This vial supporting the rod, he held in one hand, and drew snaps from the rod with a finger of his other.

These experiments were communicated to the Royal Society by William Watson, accompanied by the following explanation:[1] "After the communications which we have received from several of our correspondents in different parts of the continent acquainting us with the success of their experiments last summer in endeavoring to extract the electricity from the atmosphere during a thunder-storm, in consequence of Mr. Franklin's hypothesis, it may be thought extraordinary that no accounts have been yet laid before you of our success here from the same experiments. That no want of attention, therefore, may be attributed to those here, who have been hitherto conversant in these inquiries, I thought proper to apprize you, that, though several members of the Royal Society, as well as myself, did, upon the first advices from France, prepare and set up the necessary apparatus for this purpose, we were defeated in our expectations, from the uncommon coolness and dampness of the air here, during the whole summer. We had only at London one thunder-storm, namely, on July 20; and then the thunder was accompanied with rain, so that, by wetting the apparatus, the electricity was dissipated too soon to be perceived upon touching those parts of the apparatus which served to conduct it. This, I say, in general prevented our verifying Mr. Franklin's hypothesis."

The famous kite experiment was made during the summer

[1] *Philosophical Transactions*, XLVII, 1752.

of 1752, in Philadelphia. Franklin described it in a letter to Peter Collinson, dated October 19, 1752, which was read at the Royal Society, December 21, 1752, and printed in that month in the *Gentleman's Magazine.* It is unnecessary to repeat the description, as it is one of the commonplaces of science and will be found in its proper chronological place in the "Works."

In September of that year he erected an iron rod to draw the lightning down into his house, in order to make some experiments on it. Another rod connected to the earth he brought within six inches of it, and, attaching a small bell to each rod, he suspended a little ball by a silk thread, so that it could strike either bell when attracted to it. "I found," he wrote to Collinson (September, 1753), "the bells rang sometimes when there was no lightning or thunder, but only a dark cloud over the rod; that sometimes, after a flash of lightning, they would suddenly stop; and at other times, when they had not rung before, they would, after a flash, suddenly begin to ring; that the electricity was sometimes very faint, so that, when a small spark was obtained, another could not be got for some time after; at other times the sparks would follow extremely quick, and once I had a continual stream from bell to bell, the size of a crow-quill; even during the same gust there were considerable variations."

In the winter following he conceived an experiment to try whether the clouds were electrified *positively*, or *negatively.* He charged two vials, one with lightning from the iron rod, the other an equal charge by the electric glass globe, and suspended a cork ball by a fine silk thread from the ceiling, so that it might play between the wires. He observed the brisk play of the ball between them, and was convinced

that one bottle was electrized *negatively*. Subsequent experiments modified somewhat his first conclusions, and he learned that while in general the charge from the clouds is negative it is sometimes positive.

The first thought of the lightning rod seems to have visited Franklin in 1749. The purely speculative never held his attention long, unless there appeared in it the possibility of practical use. "It is of real use," he was wont to say, "to know that China left in the air unsupported will fall and break; but *how* it comes to fall, and *why* it breaks, are matters of speculation. It is a pleasure indeed to know them, but we can preserve our China without it."

To know the power of points he thought might possibly be of some use to mankind, though we should never be able to explain it. "May not the knowledge of this power of points be of use to mankind, in preserving houses, churches, ships, etc., from the stroke of lightning, by directing us to fix, on the highest parts of those edifices, upright rods of iron made sharp as a needle, and gilt to prevent rusting, and from the foot of those rods a wire down the outside of the building into the ground, or down round one of the shrouds of a ship, and down her side till it reaches the water? Would not these pointed rods probably draw the electrical fire silently out of a cloud before it came nigh enough to strike, and thereby secure us from that most sudden and terrible mischief?"[1]

The lightning rod was not immediately adopted. Franklin's formal recommendation that pointed rods be placed

[1] "Opinions and Conjectures concerning the Properties and Effects of the Electrical Matter," etc., 1749, addressed to Peter Collinson, Philadelphia, July 29, 1750.

on buildings to prevent their being struck by lightning was made in 1753.[1]

In concluding a long letter to Mr. Kinnersley (February 20, 1762) he observed: "You seem to think highly of this discovery, as do many others on our side of the water. Here [London] it is very little regarded; so little, that, though it is now seven or eight years since it was made public, I have not heard of a single house as yet attempted to be secured by it. It is true the mischiefs done by lightning are not so frequent here as with us; and those who calculate chances may perhaps find that not one death (or the destruction of one house) in a hundred thousand happens from that cause, and that therefore it is scarce worth while to be at any expense to guard against it."

While in America many houses were guarded by lightning rods, and at least one correspondent, Mather Byles, old and palsy-stricken, wrote that his life and that of his daughters had been saved by Franklin's "points," yet in England it was not until 1762 that Dr. Watson raised the first one, and it was 1771 before conductors were placed on the Royal Exchange. Upon the continent they were adopted slowly. In 1769 St. Jacob's Church in Hamburg was protected. It is true that in 1754 (June 15) Pastor Prokop Diwisch had erected a lightning rod in Prenditz, in the neighbourhood of Znaim in Moravia, but he was obliged to remove it in 1756, because the peasants ascribed the exceptional dryness of the season to his strange instrument.[2]

[1] Letter to Peter Collinson, Philadelphia, September, 1753.

[2] It has been claimed that Diwisch invented the lightning rod without any knowledge of Franklin's experiments. "Nach der Wiener Zeitung 'Neue Freie Presse' befinden sich in der Bibliothek der Wiener elektrischen Ausstellung (1883) die handschriftlichen Belege, dass der Prämonstratenser Ordens-

In like manner the Rev. Thomas Prince at the time of the Lisbon earthquake asserted that "the more points of iron erected round the earth to draw the electrical substance out of the air; the more the earth must needs be charged with it. And therefore it seems worthy of consideration whether any part of the earth being fuller of this terrible substance may not be more exposed to more shocking earthquakes. In Boston are more erected than anywhere else in New England; and Boston seems to be more dreadfully shaken. Oh! there is no getting out of the mighty Hand of God! If we think to avoid it in the Air we cannot in the Earth. Yea, it may grow more fatal."

M. de Saussure wrote to Franklin that he had published a short apologetic memoir in October, 1771, for the information of some people who were terrified at a conductor which he had erected at Geneva before the house he lived in. It reassured everybody, "and I had the pleasure of watching the electricity from the clouds during the whole course of the last summer. Several persons even followed this example, and raised conductors either upon their houses or before them. M. de Voltaire was one of the first. He does the same justice to your theory that he did to that of the immortal Newton."[1]

priester Prokop Diwisch in Prenditz bei Znaim am 15, Juni, 1754, eine 22 Klafter hohe Wetterstange errichtet und diesen Blitzableiter unabhängig von Franklin erfunden hat. Da Franklin seine Vorschläge über die Herableitung des Blitzes schon 1750 machte und 1753 schon eine Theorie des Blitzableiters gab scheint uns doch der Beweis für die vollständige Unabhängigkeit des Diwisch von Franklin recht schwer zu führen zu sein." "Die Geschichte der Physik," von Dr. Ferd. Rosenberger, Braunschweig, 1882, Vol. II, p. 316.

[1] M. de Saussure to Franklin, Naples, February 23, 1773.

The alarm of provincial France was less easily quieted. The youthful Robespierre had for his first case the defence of a client who had sought to protect his property by the lightning rod. It was to the young advocate, destined to strange and sinister history, his "great first cause, least understood," and he wrote to Franklin to offer him humbly but proudly his printed argument.

The letter has but recently been discovered. It will be found in its chronological place in the correspondence, but I may add a translation of it at this point.

"ARRAS, October 1. 1783

"SIR:—A judgment rendered by the échévins of St. Omer, prohibiting the use of lightning rods, has afforded me the opportunity of pleading before the Council of Artois the cause of a sublime discovery for which mankind is indebted to you. The desire to aid in uprooting the prejudices opposed to its progress in our province led me to have printed the argument which I made in this matter. I venture to hope, Sir, that you will deign to receive kindly a copy of this work, the object of which was to induce my fellow-citizens to accept one of your benefactions; happy to have been able to be of service to my region in determining its highest magistrates to receive this important discovery, happier still if I can add to this advantage the honour of securing the patronage of a man whose least merit is to be the most illustrious savant of the world. I have the honour to be with respect, Sir,

"Your very humble and very obedient servant,

"DE ROBESPIERRE,

"*Advocate to the Council of Artois.*"

The Duc de Villequier wrote to Franklin (September 23, 1779) for information, as he wished to place *paratonnerres* upon his house in Paris and his chateau in Picardy. Not that he himself feared the lightning flash, or the all-dreaded thunder-stone, but he was anxious to take every precaution to insure the safety of his mother-in-law!

A powder magazine having been exploded by lightning at Brescia in Italy, the British Board of Ordnance, through Major Dawson, their engineer, consulted Franklin to learn how the arsenals at Purfleet might be protected from that danger. Franklin visited the magazines on the 28th of May, 1772, and submitted the following day a careful report and recommendation. That they might be still better authorized to proceed, the board requested the Royal Society to give their opinion.

The society appointed a committee of five to make an examination and prepare a report. They were Messrs. Cavendish, Watson, Robertson, Wilson, and Franklin. Watson and Cavendish left to Franklin the nomination of the day of inquiry and the drawing of the report. It was prepared (August 21, 1772) and presented to the president and council of the Royal Society. Benjamin Wilson dissented from that part of the report which related to pointed conductors. He believed that they were less safe than blunt conductors, that they *solicited* the lightning, and, "if therefore we invite the lightning, while we are ignorant what the quantity or the effects of it may be, we may be promoting the very mischiefs we mean to prevent." In defence of his contention he addressed a letter to Lord Rockingham, which appeared in the *Philosophical Transactions*, Vol. LIV, p. 247. When the commission paid no attention to his dis-

sent he published two pamphlets, as Franklin says, "reflecting on the Royal Society, the committee and myself, with some asperity." With the outbreak of the war the scientific feud became a political one. George III ordered blunt conductors to be substituted for the pointed ends on Kew Palace. He even sought to compel Sir John Pringle to give an opinion in favour of the change. That estimable scholar replied that "the laws of nature were not changeable at royal pleasure." It was then "intimated to him by the King's authority that a President of the Royal Society entertaining such an opinion ought to resign." Not only was he obliged to resign the presidency, but he was deprived of his position as physician to the queen, and banished from the fickle favour of the court. Franklin writing to an unknown correspondent said: "The King's changing his pointed conductors for blunt is a matter of small importance to me. If I had a wish about it, it would be that he had rejected them altogether as ineffectual. For it is only since he thought himself and family safe from the thunder of Heaven, that he dared to use his own thunder in destroying his innocent subjects."[1]

Dr. Ingenhousz, who was at that time in England, made angry rejoinder to Wilson, but Franklin declined to be drawn into an acrimonious discussion, and said laughingly to a friend, "He seems as much heated about this *one point*, as the Jansenists and Molinists were about the five."

The town repeated with amusement many merry epigrams at the expense of the king and his policy. The best of these has become classical: —

[1] To a friend, Passy, October 4, 1777.

"While you, great George, for knowledge hunt
And sharp conductors change for blunt
The Empire's out of joint.
Franklin another course pursues
And all your thunder heedless views
By keeping to the point."[1]

One of Franklin's experiments puzzled him greatly. As he pondered over it he guessed at the correct explanation, and later scientists deduced from it one of electricity's greatest laws. He described it in a letter to Dr. John Lining, March 18, 1755: "I electrified a silver pint can, on an electric stand, and then lowered into it a cork ball, of about an inch diameter, hanging by a silk string, till the cork touched the bottom of the can. The cork was not attracted to the inside of the can, as it would have been to the outside; and, though it touched the bottom, yet, when drawn out, it was not found to be electrified by that touch, as it would have been by touching the outside. The fact is singular. You require the reason: I do not know it. Perhaps you may discover it, and then you will be so good as to communicate it to me. I find a frank acknowledgement of one's ignorance is not only the easiest way to get rid of a difficulty but the likeliest way to obtain information, and therefore I practise it; I think it an honest policy." The experiment was important. After some thought Franklin conjectured, with entire correctness, that the mutual repulsion of the inner opposite sides of the electrical can may prevent the accumulating an electric atmosphere upon them, and occasion it to stand chiefly on the outside. He was not

[1] Another popular couplet of the same kind reads: —

"He with a kite drew lightning from the sky,
And like a kite he pecked King George's eye."

entirely satisfied, and recommended it to the further examination of the curious. The experiment was repeated by Henry Cavendish, that strange, lonely character whose heart was colder than the freezing mixtures of his laboratory, and who was the greatest experimental philosopher that England has produced. He established the law that electrical repulsion varies inversely as the square of the distance between the charges.

Franklin performed some interesting experiments on the physiological action of the electric discharge. An account of them he sent to the Royal Society. The letter describing his experiments on fowls is no longer extant, but an abstract of it is to be found in "An Account of Mr. Benjamin Franklin's Treatise, lately published, entitled 'Experiments and Observations on Electricity, made at Philadelphia in America,' by William Watson, F.R.S." Dr. Watson (afterward Sir William Watson) read this paper before the Royal Society, June 6, 1751. He said "he made first several experiments on fowls, and found, that two large thin glass jars, gilt, holding each about six gallons, . . . were sufficient, when fully charged, to kill common hens outright; but the turkeys, though thrown into violent convulsions, and then, lying as dead for some minutes, would recover in less than a quarter of an hour. However, having added three other such to the former two, though not fully charged, he killed a turkey of about ten pounds' weight, and believes that they would have killed a much larger. He conceited, as himself says, that the birds killed in this manner eat uncommonly tender. In making these experiments, he found, that a man could, without great detriment, bear a much greater shock than he imagined; for he

inadvertently received the stroke of two of these jars through his arms and body, when they were very near fully charged. It seemed to him a universal blow throughout the body from head to foot, and was followed by a violent, quick trembling in the trunk, which went gradually off in a few seconds. It was some minutes before he could recollect his thoughts, so as to know what was the matter; for he did not see the flash, though his eye was on the spot of the prime conductor, from whence it struck the back of his hand; nor did he hear the crack, though the bystanders said it was a loud one; nor did he particularly feel the stroke on his hand, though he afterwards found it had raised a swelling there of the bigness of half a swan-shot or pistol-bullet. His arms and the back of his neck felt somewhat numbed the remainder of the evening, and his breast was sore for a week after, as if it had been bruised. From this experiment may be seen the danger, even under the greatest caution, to the operator, when making these experiments with large jars; for it is not to be doubted, but that several of these fully charged would as certainly, by increasing them in proportion to the size, kill a man, as they before did the turkey."[1]

Franklin believed that electricity might be used to render meat tender: "It has been observed that lightning, by rarefying and reducing into vapor the moisture contained in solid wood, in an oak, for instance, has forcibly separ-

[1] Franklin was much distressed upon learning of the death of Professor Richmann at St. Petersburg, July 26, 1753, while repeating the kite experiment for bringing lightning from the clouds. See *Philosophical Transactions*, Vol. XLVIII, p. 765; and Vol. XLIX, p. 61.

For an account of a second great stroke received by Franklin, see letter to Ingenhousz, April 29, 1785. — ED.

ated its fibres, and broken it into small splinters; that, by penetrating intimately the hardest metals, as iron, it has separated the parts in an instant, so as to convert a perfect solid into a state of fluidity; it is not then improbable, that the same subtile matter, passing through the bodies of animals with rapidity, should possess sufficient force to produce an effect nearly similar. The flesh of animals, freshly killed in the usual manner is firm, hard, and not in a very eatable state, because the particles adhere too forcibly to each other. At a certain period, the cohesion is weakened, and in its progress towards putrefaction, which tends to produce a total separation, the flesh becomes what we call tender, or is in that state most proper to be used as our food. It has frequently been remarked, that animals killed by lightning putrefy immediately. This cannot be invariably the case, since a quantity of lightning, sufficient to kill, may not be sufficient to tear and divide the fibres and particles of flesh, and reduce them to that tender state, which is the prelude to putrefaction."

He continued to instruct his correspondents how to conduct the process of killing by electricity: "Having prepared a battery of six large glass jars (each from twenty to twenty-four pints) as for the Leyden experiment, and having established a communication as usual, from the interior surface of each with the prime conductor, and having given them a full charge, a chain which communicates with the exterior of the jars must be wrapped round the thighs of the fowl; after which the operator, holding it by the wings, turned back and made to touch behind, must raise it so high that the head may receive the first shock from the prime conductor. The animal dies instantly. Let the head be imme-

diately cut off to make it bleed, when it may be plucked and dressed immediately. This quantity of electricity is supposed sufficient for a turkey of ten pounds weight, and perhaps for a lamb. Experience alone will inform us of the requisite proportions for animals of different forms and ages. . . . As six jars, however, discharged at once, are capable of giving a very violent shock, the operator must be very circumspect lest he should happen to make the experiment on his own flesh, instead of that of the fowl." [1]

The reader who will thoughtfully consider all of Franklin's papers upon electricity in these volumes will be surprised at the range of Franklin's observation of electrical phenomena. I shall refer but to one more in this place. His masterly paper upon the aurora borealis was read before the Academy of Sciences at Paris, early in 1779. Extracts from it appeared in *Le Mercure de France*, and the Abbé Rozier asked permission (August 21, 1779) to print it in *Le Journal de Physique*. He made the request, he said, in the name of every physicist in France. Franklin believed the aurora to be caused by the accumulation of electricity on the surface of polar snows and its discharge to the equator through the upper atmosphere.

The account of the electrical experiments made at Philadelphia which Franklin consigned to Collinson concluded with the following merry description of the preparations for a philosophical celebration of the conclusion of them for the season. "Chagrined a little that we have been hitherto able to produce nothing in this way of use to mankind, and the hot weather coming on, when electrical experi-

[1] To Messrs. Dubourg and Dalibard, without date, but in answer to a letter dated May 1, 1773.

ments are not so agreeable, it is proposed to put an end to them for this season, somewhat humorously, in a party of pleasure, on the banks of Skuylkil. Spirits, at the same time, are to be fired by a spark sent from side to side through the river, without any other conductor than the water — an experiment which we sometime since performed, to the amazement of many. A turkey is to be killed for our dinner by the *electrical shock*, and roasted by the *electrical jack* before a fire kindled by the *electrified bottle*, when the healths of all the famous electricians in England, Holland, France, and Germany, are to be drunk in *electrified bumpers* under the discharge of guns from the *electrical battery*." [1]

The study of medicine was one of Franklin's chief interests, and it is one of the least known. Many medical men were among his most intimate companions and most valued correspondents. It is only necessary to mention Sir John Pringle, J. C. Lettsom, John Fothergill, Benjamin Rush, Thomas Bond, Ingenhousz, Dubourg, Gastellier, and Guillotin to realize how wide was his acquaintance with the profession.

In 1751 he promoted the founding of the Pennsylvania Hospital. He was elected January 17, 1777, a member of the Royal Medical Society of Paris. He was appointed a commissioner to investigate the theories of Mesmer in 1784. In 1787 (July 16) he was appointed an honorary member of the Medical Society of London. The leaders of medical thought came to him in the attitude of pupils.

He drove in a post-chaise through Scotland, Switzerland,

[1] "An electrified bumper is a small thin glass tumbler, near filled with wine, and electrified as the bottle. This, when brought to the lips gives a shock, if the party be close shaved, and does not breathe on the liquor."

Holland, and Germany, with Sir John Pringle, President of the Royal Society, a pupil of the illustrious Boerhaave, and the first physician who applied scientific principles practically in the prevention of dysentery and hospital fevers, and so worked a reform in military medicine and sanitation. He was in constant correspondence with Dr. Jan Ingenhousz, of Vienna, the court physician to Maria Theresa and to Joseph II, who sought his advice before inoculating the young princes of the imperial family; and together they travelled through England and part of France. His life was written by John Coakley Lettsom, the most successful English physician of his generation and founder of the General Dispensary — the first in London. He exchanged opinions upon pathology and therapeutics as well as politics and peace with Dr. Fothergill, of whom he said: "I can hardly conceive that a better man has ever existed." In France Vicq d'Azyr, physician to the queen, planned the Royal Society of Medicine, and, at its inauguration in 1776, became its perpetual secretary. Franklin was the first foreign associate elected, and in 1780 Vicq d'Azyr wrote to him: "The Royal Society recognizing the talents and brilliancy of the physicians of America, we wish to confer the honour of correspondent upon some of them, and we judge that that honour would be doubled by passing through Franklin's hands, and therefore hope that he will present the diplomas."

Dr. Barbeu Dubourg, one of the most skilful physicians in Paris, a member of learned societies in four countries, translated Franklin's works into French, and during a long and affectionate friendship always addressed him with *reverence* as "mon cher maître." He wrote to Comte de

Vergennes, Minister of Foreign Affairs, "I flatter myself that they [Franklin and his fellow-commissioners] honour me with a singular confidence and I would rather die than abuse it in any way."

Gastellier, the author of a celebrated article upon the persistence of sensation after decollation by the guillotine, eagerly desired the honour of dedicating to Franklin his treatise upon "Specifics in Medicine," a work which was crowned by the Royal Academy of Medicine. The Marquis of Mirabeau interceded for him and begged Franklin to accept the dedication.

Joseph Ignace Guillotin was closely associated with Franklin, and consulted him about a project of emigration to Ohio. Letters were frequent between them, and they served together upon the commission that inquired into the truth of mesmerism. His name was destined to be forever linked, to the horror of himself, and of his family, to that reaper of the revolution,

> "Whose sheaves sleep sound
> In dreamless garner underground."

At home Thomas Bond, John Bard, Thomas Cadwallader, and Benjamin Rush begged him to accept the grateful dedications of their medical works. I have already quoted Franklin's letter to Rush. requesting him to omit from his essay, "Upon the Influence of Physical Causes on the Moral Faculty," "that most extravagant encomium upon your friend Franklin." Rush suppressed the "encomium," but sent his publication into the world under the patronage of that great name:

"To his Excellency, Benjamin Franklin, Esq., President of the Supreme Executive Council of Pennsylvania, the

friend and benefactor of mankind, the following oration is inscribed by his grateful friend and humble servant, the Author."

A part of Dr. Rush's diary which for a long time has been in the Ridgway Library, Philadelphia, has recently been published in the *Pennsylvania Magazine of History and Biography* (January, 1905), and it contains some interesting notes of Dr. Franklin's conversation. The distinguished physician naturally reported with most care the comments of Franklin upon medicine. "1786 August. I waited on the Doctor with a Dr. Minto. He said he believed that Tobacco would in a few years go out of use. That, about 30 years ago, when he went to England, Smoaking was universal in taverns, coffee-houses, and private families, but that it was now generally laid aside, that the use of Snuff, from being universal in France was become unfashionable among genteel people no person of fashion under 30 years of age now snuffed in France. He added that Sir John Pringle and he had observed that tremors of the hands were more frequent in France than elsewhere, and probably from the excessive use of snuff. They once saw in a company of 16 but two persons who had not these tremors at a table in France. He said Sir John was cured of a tremor by leaving off snuff. He concluded that there was no great advantage in using tobacco in any way, for that he had kept company with persons who used it all his life, and no one had ever advised him to use it. The Doctor in the 81st year of his age declared he had never snuffed, chewed, or smoked."

"Septem'r 23rd, He said he believed the Accounts of the plague in Turkey were exaggerated. He once conversed

with a Dr. MacKensie who had resided 38 years at Constantinople, who told him there were *five* plagues in that town. The plague of the drugger-men or interpreters, who spread false stories of the prevalence of the plague in order to drive foreign ministers into the country, in order that they might enjoy a little leisure. 2. The plague of debtors, who when dunned, looked out of their windows, and told their creditors not to come in for the plague is in their houses. 3. The plague of the Doctors, for as they are never paid for their attendance on such patients as die, unless it be with the plague they make most of *fatal* diseases the plague. The doctor forgot the other two. He added that Dr. MacKensie upon hearing that 660 dead with the plague, were carried out of one of the gates daily, had the curiosity to stand by that gate for one whole day, and counted only 66."

"Sept. 22. Waited upon Dr. Franklin with Doctor Thibou of Antigua. The Dr. said few but quacks ever made money by physic, and that no bill drawn upon the credulity of the people of London by quacks, was ever protested. He ascribed the success of quacks partly to patients extolling the efficacy of the remedies they took from them, rather than confess their ignorance and credulity, hence it was justly said, 'quacks were the greatest liars in the world, except their patients.'

"November. Spend half an hour with Dr. in company with the Rev'd. Mr. Bisset and Mr. Goldsborough. He said Sir John Pringle once told him 92 fevers out of 100 cured themselves, 4 were cured by Art, and 4 proved fatal. About the end of this month I saw him alone. He talked of Climates; I borrowed some hints from the Conversation for the essay on Climates."

Early in his correspondence Benjamin Gale, of Killingworth, an agriculturist, who was awarded by the Society of Arts a medal for an improvement of the drill plough, asked Franklin his opinion of the value of meadow saffron as a cure for dropsy. Years later the English journals gave wide currency to a tale that Franklin had discovered in tobacco ashes a sovereign remedy for dropsy. His correspondence abounds with references to this canard. John Stewart, of London, in 1777, asked him for further information concerning it, saying: "In one of our newspapers of this week it is asserted that you had recommended the use of tobacco ashes to the physicians at Paris in the cases of ascites, an anasarca, an œdema, and every species of hydropical complaint. That they in consequence had made many experiments and that all of them had been followed by a surprising and speedy cure. . . . What proportion of these ashes goes to a dose and how often to be taken in the twenty four hours?"

Dr. Galevan has a patient who is afflicted with dropsy. His skill brings no relief, and he is anxious to know about the use of tobacco ashes.

Dr. Santoux, of Bordeaux (1778), wants to know about the efficacy of ashes in the treatment of dropsy; Cathallet Cotiere, of St. Sulpice, and Roger Wilbraham, of Rue de Richelieu, desire information on this point; and Serrier, curé of Damvilliers (1778), says he has a parishioner who has had dropsy for twenty-eight years. Will tobacco ashes cure him? Many such letters came to Franklin from all parts of Europe, and I find one brief reply sent by him to Dr. Daniel Nunez de Tavarez, an eminent physician of Zwolle, Overyssel: —

"PARIS, January 4, 1778

"SIR.

"The account given in the newspapers of my having furnished the Physicians with a receipt against the dropsy is a mistake. I know nothing of it, nor did I ever hear before that tobacco ashes had any such virtue. I thank you for your kind congratulations on our late successes and good wishes for the establishment of our liberty.

"I have the honour to be, respectfully, Sir

"Your most obedient humble servant

"B. FRANKLIN."

Some of Franklin's contributions to medical literature have become classical. Witness his letters to Cadwallader Evans, and Benjamin Vaughan, upon the causes of the *colica Pictonum*, or "dry belly ache," and his numerous papers upon catarrhs and contagious colds.

Dr. John Hunter took the hints that he found in the first-named letter, and built them, with due acknowledgement, into his essay on the "dry belly ache of the tropics." Writing to Dr. Cadwallader Evans, under date of February 20, 1768, Franklin said: "I have long been of opinion that that distemper proceeds always from a metallic cause only; observing that it affects among tradesmen, those that use lead, however different their trades, — as glaziers, letter-founders, plumbers, potters, white lead makers and painters, and although the worms of stills ought to be of pure tin, they are often made of pewter, which has a great mixture in it of lead." When Franklin and Benjamin Vaughan talked together at Southampton in 1785, while waiting for Franklin's ship to sail, the last subject upon which they conversed was

the bad effects of lead taken inwardly. Twelve months after Franklin wrote to his friend a particular account of several facts he had at that time mentioned to him. He recalled a personal experience when working in London as a compositor: "I there found a practice I had never seen before, of drying a case of types (which are wet in distribution) by placing it sloping before the fire. I found this had the additional advantage, when the types were not only dried but heated, of being comfortable to the hands working over them in cold weather. I therefore sometimes heated my case when the types did not want drying. But an old workman, observing it, advised me not to do so, telling me I might lose the use of my hands by it, as two of our companions had nearly done, one of whom that used to earn his guinea a week, could not then make more than ten shillings, and the other, who had the dangles, but seven and sixpence. This, with a kind of obscure pain, that I had sometimes felt, as it were in the bones of my hand when working over the types made very hot, induced me to omit the practice. . . . I have been told of a case in Europe, I forget the place, where a whole family was afflicted with what we call the dry belly ache, or colica Pictonum, by drinking rain water. It was at a country-seat, which, being situated too high to have the advantage of a well, was supplied with water from a tank, which received the water from the leaded roofs. This had been drunk several years without mischief; but some young trees planted near the house growing up above the roof, and shedding their leaves upon it, it was supposed that an acid in those leaves had corroded the lead they covered, and furnished the water of that year with its baneful particles and qualities."

When Franklin was in Paris with Sir John Pringle in 1767, the latter visited La Charité, a hospital particularly famous for the cure of that malady, and brought away a pamphlet containing a list of the names of persons, with their professions or trades, who had been cured there. Franklin had the curiosity to examine the list, and found that all the patients were of trades that, some way or other, use or work in lead.

When that impudent and amazing impostor Mesmer was at the height of favour in Paris, coining the French credulity into gold, claiming that magnetic and healing effluvia streamed from his finger tips, Franklin was appointed by the king a member of a commission to inquire into the therapeutic value of "Mesmerism." The four distinguished physicians to serve upon the commission were Majault, Sallin, D'Arcet, and Guillotin. The five members of the Academy appointed to confer with them were Franklin, Le Roy, Bailly, De Bory, and Lavoisier.

The commission conducted its examination of Mesmer's doctrine and experiments, from the 12th of March, 1784, to the 11th of August of that year.

The report was drawn up by Franklin, to whose sagacity and ingenuity the complete exposure and discomfiture of Mesmer was chiefly due. The distinguished professor of the Faculty of Medicine at Paris, Dr. Gilles de la Tourette, has called the report "a scientific work of the first order, which is worthy of being consulted to-day by all those who are interested in hypnotism and the diseases of the nervous system."[1]

[1] See Tourtourat, "Benj. Franklin et la Médecine à la Fin du XVIIIe Siècle." Paris, 1900, p. 37.

Mesmer fled, rich and disgraced to England, where he disappeared from sight. Paris resumed her tranquillity and awaited a new sensation, while the wits composed such epigrams as the following which was sent to Franklin: —

Le Magnétisme(dem)asqué
Epigramme
faite sur le champ après avoir lu le rapport des Commissaires.

Le Magnétisme est aux abois
La Faculté l'Académie
L'ont condamné tous d'une voix,
Et l'ont couvert d'ignominie
Après ce jugement bien sage et bien légal
Si quelque esprit original
Persiste encore dans son délire
Il sera permis de lui dire
Crois au magnétisme — animal![1]

One of Franklin's favourite beliefs was that physicians were "on a wrong scent in supposing moist or cold air the causes of that disorder we call a cold." He was persuaded that colds were generally the effect of too full living, and that they were frequently contagious. This "heresy," as he called it, he expounded in letters to Dr. Dubourg (March 10 and June 29, 1773), Benjamin Rush (July 14, 1773), and Dr. Thomas Percival (September 25, 1773). He engaged Dr. Stark to make experiments with Sanctorius's balance, to estimate the different proportions of his perspiration, when remaining one hour quite naked and another warmly clothed. The experiment was pursued in this alternate manner for

[1] Franklin's copy of the Report of the Royal Commission is in the Pennsylvania Historical Society. It is entitled "Rapport des commissaires chargés par le Roi de l'examen du Magnétisme Animal. Imprimé par ordre du Roi. A Paris. De l'Imprimerie Royale. MDCCLXXXIV."

See also letter from F. to Condamine, March 19, 1784, and letter from Mesmer to F., December 1, 1779.

eight hours successively, and the physician found that his perspiration almost doubled during those hours in which he was naked. To Le Roy, who had consulted him about hospitals, Franklin wrote: "I can only say, that, if a free and copious perspiration is of use in diseases, that seems to be best obtained by light covering and fresh air continually changing: the moisture on the skin, when the body is warmly covered, being a deception, and the effect, not of greater transpiration, but of the saturation of the air included under and in the bed clothes, which therefore can absorb no more, and so leaves it on the surface of the body. . . . Our physicians have begun to discover that fresh air is good for people in the small-pox, and other fevers. I hope in time they will find out, that it does no harm to people in health."

With regard to contagious colds he wrote to Dr. Rush: "I have long been satisfied from observation, that besides the general colds now termed *influenzas* (which may possibly spread by contagion, as well as by a particular quality of the air), people often catch cold from one another when shut up together in close rooms, coaches, etc., and when sitting near and conversing, so as to breathe in each other's transpiration; the disorder being in a certain state. I think too that it is the frouzy, corrupt air from animal substances, and the perspired matter from our bodies, which being long confined in beds not lately used, and clothes not lately worn, and books long shut up in close rooms, obtains that kind of putridity, which occasions the colds observed upon sleeping in, wearing, and turning over such bed clothes, or books, and not their coldness or dampness. From these causes, but more from too full living, with too little exercise,

proceed in my opinion most of the disorders which for about one hundred and fifty years past the English have called *colds*."

Felix Vicq d'Azyr communicated to the Royal Society of Medicine a letter from Franklin upon the long retention of infection in dead bodies after sepulture. He cited an instance of the spread of smallpox in an English village through the opening of the grave of a man who had died of that disease thirty years before. "About the year 1763 or 1764 several physicians of London, who had been present from curiosity at the dissection of an Egyptian mummy, were soon after taken ill of a malignant fever of which they died. Opinions were divided on this occasion. It was thought by some that the fever was caused by infection from the mummy; in which case the disease it died of might have been embalmed as well as the body. Others who considered the length of time, at least two thousand years, since that body died, and also that the embalming must be rather supposed to destroy the power of infection, imagined the illness of these gentlemen must have had another original." Still another instance which Franklin doubtfully adduces is the singularly violent cold with which two members of the Royal Society were affected immediately after making a close examination of the dried body, at least three hundred years old, of one of the ancient inhabitants of the island of Teneriffe.

The Earl of Buchan always declared that Franklin's advice had saved his life, for when he lay ill of a fever at St. Andrews, Franklin dissented from the opinion of the learned Dr. Simpson that the patient should be blistered. The earl, then Lord Cadross, hearkened to Franklin, and

his advice proved so salutary that the disorder speedily took a favourable turn.

The world is indebted to Franklin for the invention of the bifocal glasses. His friend George Whatley told Dollond, the famous optician, of the invention, but the latter fancied that it would only benefit particular eyes and could be of no general use. In reply Franklin said: "By Mr. Dollond's saying that my double spectacles can only serve particular eyes, I doubt he has not been rightly informed of their construction. I imagine it will be found pretty generally true, that the same convexity of glass through which a man sees clearest and best at the distance proper for reading is not the best for greater distances. I therefore had formerly two pair of spectacles which I shifted occasionally, as in travelling I sometimes read, and often wanted to regard the prospects. Finding this change troublesome, and not always sufficiently ready, I had the glasses cut and half of each kind associated in the same circle. By this means as I wear my spectacles constantly, I have only to move my eyes up or down, as I want to see distinctly far or near, the proper glasses being always ready. This I find more particularly convenient since my being in France, the glasses that serve me best at table to see what I eat, not being the best to see the faces of those on the other side of the table who speak to me; and when one's ears are not well accustomed to the sounds of a language, a sight of the movements in the features of him that speaks help to explain; so that I understand French better by the help of my spectacles."

Ventilation was a subject to which Franklin devoted careful attention. He was said to be the first who observed

that respiration communicated to the air a quality resembling the mephitic; such as the Grotto del Cane, near Naples. "The air impressed with this quality rises only to a certain height, beyond which it gradually loses it. The amendment begins in the upper part, and descends gradually until the whole becomes capable of sustaining life." Dr. Small, an English surgeon, in a paper read before the French Academy of Sciences, said: "The Doctor confirmed this by the following experiment. He breathed gently through a tube into a deep glass mug, so as to impregnate all the air in the mug with this quality. He then put a lighted *bougie* into the mug; and upon touching the air therein the flame was instantly extinguished; by frequently repeating the operation, the *bougie* gradually preserved its light longer in the mug, so as in a short time to retain it to the bottom of it; the air having totally lost the bad quality it had contracted from the breath blown into it."[1] Upon a visit to Priestley he was much interested in observing the flourishing state of some mint that was growing in noxious air. It immediately suggested to him "that the air is mended by taking something from it and not by adding to it." After a little reflection he wrote to Priestley: "We knew before that putrid animal substances were converted into sweet vegetables, when mixed with the earth and applied as manure; and now it seems that the same putrid substances, mixed with the air have a similar effect. . . . I hope this will give some check to the rage of destroying trees that grow near houses, which has accompanied our late im-

[1] Alexander Small, on Ventilation; communicated to the Royal Academy of Sciences. Printed in M. Dubourg's edition of Franklin's works, Vol. II, *p. 314.* Transcript in Library of Congress.

provements in gardening from an opinion of their being unwholesome." [1]

The Government of England consulted Franklin upon the ventilation of the House of Commons. He "represented that the personal atmosphere surrounding the members might be carried off by making outlets in perpendicular parts of the seats, through which the air might be drawn off by ventilators, so placed, as to accomplish this without admitting any by the same channels." He also proposed that openings should be made close to the ceilings of rooms communicating with a flue which should ascend in the wall close to the flues of the chimneys, and, where it could be done conveniently, close to the flue of the kitchen chimney; because the fire, burning pretty constantly there, would keep the sides of that flue warmer than those of the other chimneys; whereby a quicker current of air would be kept up in the ventilating flue. Alexander Small showed what he called "Franklin's directions in regard to ventilation" to one of the Messrs. Adam, of the Adelphi, who not only applied the principles in the construction of the great room built by them for the meeting of the Society for the Encouragement of Arts, but insisted upon the dissertation being given to the Royal Society at Edinburgh. "If it is published by them," added Small, "I shall, as Sir Richard Steele says somewhere to Mr. Addison, live joined to a work of thine." [2]

His attention to questions of ventilation led him to the careful observation of chimneys and to the invention of the new stove, or "Pennsylvanian Fire Place." Here again

[1] Franklin to Priestley; published in Priestley's "Experiments on Air," Vol. I, p. 94.

[2] Alexander Small to Benjamin Franklin, November 29, 1788. A. P. S.

his reputation spread over the continent. He published his "Account of the new-invented Pennsylvanian Fire-Places" in 1744. He wrote upon the causes and cure of smoky chimneys to Dr. Ingenhousz (August 28, 1785), to Sir Alexander Dick (January 21, 1762), to the Marquis Turgot (May 1, 1781), and to Lord Kames (February 28, 1768).

Before the time of Franklin's invention smoky chimneys were among the commonest annoyances of domestic life. A smoky house is mentioned by Shakespeare in the category of tedious things, with a tired horse and a railing wife. "How may smoky chimneys be best cured?" was one of Franklin's queries for the Junto. "It is strange methinks," he remarked, "that though chimneys have been for so long in use, the construction should be so little understood, till lately, that no workman pretended to make one which should always carry off all smoke." Lord Kames wrote that he had bought a house which would be the most complete in Edinburgh but that the chimney smoked. He applied to Franklin as "a universal smoke doctor" to remedy it.[1]

Another disadvantage of the old fireplace was its merely local warmth: "The cold air so nips the backs and heels of those that sit before the fire, that they have no comfort till either screens or settles are provided to keep it off, which both cumber the room and darken the fire-side. A moderate quantity of wood on the fire, in so strong and cold a draft, warms but little; so that people are continually laying on more. In short it is next to impossible to warm

[1] Henry Home (Lord Kames) to Franklin. Edinburgh, February 18, 1768. A. P. S.

a room with such a fire place." The Pennsylvanian Fire Place which he invented in 1742 had the advantage "that your whole room is equally warmed, so that people need not crowd so close round the fire, but may sit near the window, and have the benefit of the light for reading, writing, needlework, etc. They may sit with comfort in any part of the room, which is a very considerable advantage in a large family, where there must often be two fires kept, because all cannot conveniently come at one." As very little of the heat is lost when this fireplace is used, "much less wood will serve you, which is a considerable advantage when wood is dear. . . . We leave it to the political arithmetician to compute how much money will be saved to a country, by its spending two thirds less of fuel; how much labour saved in cutting and carriage of it; how much more land may be cleared by cultivation; how great the profit by the additional quantity of work done, in those trades particularly that do not exercise the body so much, but that the work folks are obliged to run frequently to the fire to warm themselves; and to physicians to say, how much healthier thick-built towns and cities will be, now half suffocated with sulphury smoke, when so much less of that smoke shall be made, and the air breathed by the inhabitants be consequently so much purer." [1] The simple principle upon which the new fireplace was designed was that the heat from an open fire after ascending should be made to descend before escaping through the chimney, and thus be made to heat currents of fresh air as they entered the room.

[1] "An Account of the new-invented Pennsylvanian Fire Places." Philadelphia, 1744.

Cadwallader Colden sent Franklin's pamphlet to Gronovius, a distinguished scion of an erudite family, saying: "It may be particularly useful to you and Dr. Linnæus by preserving your health while it keeps you warm at your studies. It is the invention of Mr. Benjamin Franklin of Philadelphia, the printer of it, a very ingenious man." Gronovius replied, "I am very much obliged to you for Mr. Franklin's book which I don't doubt the next letter shall bring to you translated into Dutch" (Leyden, July 9, 1745).

Turgot wrote to Franklin (April 25, 1781) to ascertain the method by which his stove consumed its own smoke and diminished the quantity of fuel which it consumed. The stove to which he referred was not the invention of 1742, but a second contrivance which Franklin completed in 1771, and which was constructed on the principle of a siphon reversed, "operating on air somewhat similar to the operation of the common siphon on water, . . . this causes the smoke to descend also, and in passing through burning coals it is kindled into flame, thereby heating more the passages in the iron box whereon the vase which contains the coals is placed; and retarding at the same time the consumption of the coals." [1]

It was this invention that suggested the clever epigram which has been ascribed to many authors: —

"INSCRIPTION ON A CURIOUS STOVE IN THE FORM OF AN URN, CONTRIVED IN SUCH A MANNER AS TO MAKE THE FLAME DESCEND INSTEAD OF RISING FROM THE FIRE, INVENTED BY DR. FRANKLIN.

"Like a Newton sublimely he soared
To a summit before unattained,

[1] Franklin to the Marquis Turgot, Passy, May 1, 1781.

New regions of science explored
And the palm of philosophy gained.

"With a spark which he caught from the skies
He displayed an unparalleled wonder,
And we saw with delight and surprise
That his rod could secure us from thunder.

"Oh! had he been wise to pursue
The track for his talents designed,
What a tribute of praise had been due
To the teacher and friend of mankind.

"But to covet political fame
Was in him a degrading ambition,
The spark that from Lucifer came
And kindled the blaze of sedition.

"Let candor then write on his urn,
Here lies the renowned inventor
Whose fame to the skies ought to burn
But inverted descends to the centre."[1]

Franklin's essay "On the Causes and Cure of Smoky Chimneys" was written at sea in August, 1785, and first appeared in the *Transactions* of The American Philosophical Society, where it was read October 21, 1785. It is an exhaustive and thoroughly scientific discussion of nine direct causes of the effect in question with the remedies in each case, together with the principles on which both the disease and the remedy depend. It is written in a sprightly vein and contains some illustrative stories and anecdotes well told.

After more than twenty years' experience of his own in-

[1] These verses have been variously ascribed to Jonathan Odell, Miss Norris, and others. The most likely ascription seems to be to Hannah Griffiths, among whose papers, in the Ridgway Library, Philadelphia, a manuscript copy is found. — ED.

vention (the Pennsylvanian Fire Place) and those of others for the warming of rooms, Franklin was of the opinion that the best contrivance for common use was a thin iron plate sliding in a grooved frame of iron inserted in the opening of the chimney. "The principles of this construction are these: Chimney funnels are made much larger than is necessary for conveying the smoke. In a large funnel a great quantity of air is continually ascending out of the room, which must be supplied through the crevices of doors, windows, floors, wainscots, etc. This occasions a continual current of cold air from the extreme parts of the room to the chimney, which presses the air warmed by the direct rays of the fire into the chimney and carries it off, thereby preventing its diffusing itself to warm the room. By contracting the funnel with this plate, the draft of air up the chimney is greatly lessened, and the introduction of cold air through the crevices to supply its place is proportionally lessened. Hence the room is more uniformly warmed, and with less fire, and the currents of cold air towards the chimney being lessened it becomes much more comfortable sitting before the fire." [1]

It has been already said that Franklin never sought to profit by any of his inventions. And there have not been wanting detractors who have attempted to deprive him of the fame of his discoveries. It has been repeatedly asserted that he assumed to himself the credit of achievements that really belonged to a humble and obscure scholar named Ebenezer Kinnersley. How this hapless and undone scientist regarded his wanton plunderer may best be inferred from

[1] Franklin to Sir Alexander Dick, London, January 21, 1762 See also Franklin to James Bowdoin, London, December 2, 1758.

a letter addressed by him to Franklin, in which, after narrating the way in which a house in Philadelphia was saved from destruction by a lightning rod, he concludes: "And now Sir, I most heartily congratulate you on the pleasure you must have in finding your great and well founded expectations so far fulfilled. May this method of security from the destructive violence of one of the most awful powers of nature meet with such further success, as to induce every good and grateful heart to bless God for the important discovery! May the benefit thereof be diffused over the whole globe! May it extend to the latest posterity of mankind, and make the name of FRANKLIN like that of NEWTON *immortal*." [1]

Franklin's numerous experiences in this kind suggested the painful reflections found in his excellent letter to Dr. Lining, of Charleston. He says: "Through envy, jealousy and the vanity of competitors for fame, the origin of many of the most extraordinary inventions, though produced within but a few centuries past, is involved in doubt and uncertainty. We scarce know to whom we are indebted for the compass and spectacles, nor have even paper and printing, that record everything else, been able to preserve with certainty the name and reputation of their inventors. One would not, therefore, of all faculties or qualities of the mind, wish, for a friend or a child, that he should have that of invention. For his attempts to benefit mankind in that way, however well imagined, if they do not succeed, expose him, though very unjustly, to general ridicule and contempt; and, if they do succeed, to envy, robbery and abuse." [2]

[1] E. Kinnersley to Franklin, Philadelphia, March 12, 1761.

[2] Franklin to John Lining, Philadelphia, March 18, 1755.

It is time to close this halting and imperfect summary of Franklin's scientific activities. The task is difficult because of the volume and variety of his contributions. He was restlessly curious about all natural phenomena, and he penetrated with astonishing swiftness and certainty to the heart of each new mystery he encountered. It was his delight to watch the growth of knowledge and of power, and in speculative moments he dipped into the future, pleasing his fancy with the imaginary contemplation of the wonders that would be.

To Ingenhousz he wrote: "To inquisitive minds like yours and mine the reflection that the quantity of human knowledge bears no proportion to the quantity of human ignorance must be in one view rather pleasing, viz. that though we are to live forever we may be continually amused and delighted with learning something new." Upon one occasion he submitted to M. Dubourg some observations on the prevailing doctrines of life and death. He told him that he had been present at the house of a friend in London when a bottle of Madeira that had been sent from Virginia was opened, and three drowned flies fell into the first glass that was filled. "Having heard it remarked that drowned flies were capable of being revived by the rays of the sun, I proposed making an experiment upon these; they were therefore exposed to the sun upon a sieve which had been employed to strain them out of the wine. In less than three hours two of them began by degrees to recover life. They commenced by some convulsive motions of the thighs, and at length they raised themselves upon their legs, wiped their eyes with their forefeet, beat and brushed their wings with their hind feet, and soon after began to fly, finding

themselves in Old England, without knowing how they came thither. The third continued lifeless till sunset, when, losing all hopes of him, he was thrown away.

"I wish it were possible, from this instance, to invent a method of embalming drowned persons, in such a manner that they may be recalled to life at any period, however distant; for having a very ardent desire to see and observe the state of America a hundred years hence, I should prefer to any ordinary death, the being immersed in a cask of Madeira wine, with a few friends, till that time, to be then recalled to life by the solar warmth of my dear country." [1]

Had his eyes opened after a century's slumber, upon what a world would their calm gaze have rested! The vast images that he saw in glimmering dawn become now the commonplaces of schoolboys. His daring prophecies of the possibilities of electricity more than fulfilled. A great and proud people, justifying his unfaltering faith in popular instincts and institutions, holding in grateful and perpetual memory his lifelong labours and sacrifices!

POLITICAL AND ECONOMICAL WORKS

Franklin was the first American economist. The study of political economy employed his thoughts before the minds of speculative men in Europe were attracted to its problems. He became the intimate friend of the *physiocrats* of France, and exchanged ideas and books with Dupont de Nemours, Dubourg, Mirabeau, Turgot, Morellet, Condorcet, and "the venerable apostle Quesnay. He anticipated Turgot in the explanation of natural interest, and Malthus in the theory

[1] Dubourg's edition of Franklin, Vol. I, p. 327.

of population. Adam Smith communicated with him on some particulars of "The Wealth of Nations" several years before that epoch-making work was published. Edmund Burke, Dr. Price, and Lord Kames gleaned from him. David Hume followed his writings with keen interest, though he disapproved his "factious spirit"; faction and fanaticism were alike detestable to that easy, sceptical, Tory soul. He fertilized the mind of Cobden, and was clear and acute upon problems of trade which vex the political thought of the present time.

His economic works are: —

"A Modest Enquiry into the Nature and Necessity of a Paper Currency" (1729).

"Observations concerning the Increase of Mankind and the Peopling of Countries" (1751).

"The Interest of Great Britain Considered. with regard to her colonies, and the Acquisitions of Canada and Guadaloupe" (1760).

"Remarks and Facts relative to the American Paper Money" (1765).

"Positions to be examined concerning National Wealth" (1769).

"Comparison of Great Britain and the United States in regard to the basis of Credit in the two Countries" (1777).

"On the Paper Money of the United States" (1781).

"Reflections on the Augmentation of Wages, which will be occasioned in Europe by the American Revolution" (1783).

"Internal State of America, being a true description of the Interest and Policy of that vast Continent" (1784).

"Information to those who would remove to America" (1784).

Besides these more formal works there exist a number of briefer papers, mere glances at social and political circumstances, which are to be found in the prefaces and prognostics of Poor Richard and in the anonymous columns of the periodicals of Europe. Such are the "Advice to a

Young Tradesman," "The Way to Wealth," "On the Price of Corn, and the Management of the Poor," "Wail of a Protected Manufacturer."

"Principles of Trade," originally published in 1774, has been frequently included among the works of Franklin. As it is well known to have been written by George Whatley, and was so acknowledged by Franklin, it has been omitted from this edition. Franklin wrote to Mr. Whatley (August 21, 1784): "Your excellent little work, 'The Principles of Trade,' is too little known. I wish you would send me a copy of it by the return of my grandson and secretary whom I beg leave to recommend to your civilities. I would get it translated and printed here. And if your bookseller has any quantity of them left, I should be glad he would send them to America. The ideas of our people there, though rather better than those that prevail in Europe, are not so good as they should be; and that piece might be of service among them."

"An Historical Review of the Constitution and Government of Pennsylvania," the most voluminous work ascribed to Franklin and printed in nearly every previous edition of his works, is omitted from this collection. It is clear from internal evidence and from Franklin's statement to David Hume that it was not of his writing. He told Hume (September 27, 1760): "The volume relating to our Pennsylvania affairs was not written by me, nor any part of it, except the remarks on the Proprietor's estimate of his estate, and some of the inserted messages and reports of the Assembly, which I wrote when at home, as a member of committees appointed by the House of that service. The rest was by another hand." There can be no doubt that Franklin prompted the writing

of the book. The ideas are his, and he approved of its purpose, which was the promoting the claims of the Pennsylvania Assembly in their controversy with the Proprietaries. He did all in his power to circulate the work in England and America. He sent five hundred copies to Mr. Hall, fifty to be delivered to the assembly. He sent twenty-five copies to Mr. Parker in New York, and a like number to Mecom in Boston. To paraphrase Queen Elizabeth in the play, "Whose hand soever held the pen, his head all indirectly gave direction." But this is not authorship; and it is manifestly superfluous and improper to include among the works of Franklin a publication which, however inspired by him, was not of his composition.

Another work was only partly written by Franklin. "The Interest of Great Britain Considered, with regard to her colonies, and the Acquisitions of Canada and Guadaloupe," commonly known as "The Canada Pamphlet," was the joint production of Benjamin Franklin and Richard Jackson.

Their relative shares in the work it is now impossible to determine. When Vaughan was preparing the 1779 edition of Franklin's works, he consulted with Baron Maseres, of the Inner Temple, with regard to the participation of the two writers. Maseres marked with a black perpendicular line those parts of the pamphlet which, according to his belief, were written by Franklin. After much deliberation Vaughan replied that the affair had become too delicate for him to intermeddle with it. The claim of the "omniscient Jackson" extended to two-thirds of the whole pamphlet. A problem that was "too delicate" for the judgment of one of Franklin's dearest and wisest friends is much too difficult

for us to decide upon. The entire work is therefore printed here as the joint production of Franklin and Jackson.

All Franklin's economical works had their origin in the social circumstances and public exigencies of the times when they were written. They were intended to subserve a definite political purpose, and might be called campaign documents. They contain, therefore, no system of economic thought, no carefully reasoned scheme of philosophy, no congeries of laws underlying and interpreting the complicated fabric of society. Their author is often inconsistent, he frequently contradicts himself, and is obviously pursuing what he regards as political expediency.

"A Modest Inquiry into the Nature and Necessity of a Paper Currency" was intended primarily to increase "the trade, employment, and number of inhabitants in the province," but the hope of securing the printing of the money was not absent from the author's thrifty mind. The colonies were suffering from lack of currency. Massachusetts, New York, Rhode Island, and South Carolina had attempted to meet the requirements of their growth by the issue of paper money. When Franklin walked the quiet streets of Philadelphia on the memorable Sunday in October, 1723, when he first arrived from Burlington, he saw many houses in Walnut Street between Second and Front streets with bills on their doors, "To be let." In other streets he saw similar signs; which, he said, "made me think the inhabitants of the city were one after another deserting it." Trade was languishing for lack of currency. The balance of trade being greatly in favour of Britain, Pennsylvania was totally stripped of its gold and silver. Cautiously and fearfully a small sum of paper money (£15,000) was struck in that year.

Immediately trade revived. The notes were to be called in at the end of eight years. About this time (1729) there went up a cry among the people for more paper money. The clamour was strengthened by Franklin's anonymous pamphlet, and the point was carried by a majority in the House. As he had hoped, he was employed to print the money: "A very profitable job, and a great help to me. This was another advantage gained by my being able to write." His opinions with regard to paper money experienced considerable fluctuation. In 1729 he appeared to believe that an overissue was impossible. In 1781, in his history of the "Paper Money of the United States," he ascribed the depreciation of the continental currency to overissue. In 1765, in his vindication of the colonial paper money, he maintained that such currency should be a legal tender: "It is therefore hoped that, securing the full discharge of British debts, which are payable here, and in all justice and reason ought to be fully discharged here, in sterling money, the restraint on the legal tender within the colonies will be taken off; at least for those colonies that desire it, and when the merchants trading to them make no objection to it."[1]

In a letter to M. le Veillard (February 17, 1788) he said: "Where there is a free government and the people make their own laws by their representatives I see no injustice in their obliging one another to take their own paper money. It is no more so than compelling a man by law to take his own note. But it is unjust to pay strangers with such money against their will. The making of paper money with such

[1] "Remarks and Facts relative to the American Paper Money" (concluding paragraph).

a sanction is however a folly, since, although you may by law oblige a citizen to take it for his goods, you cannot fix his prices; and his liberty of rating them as he pleases, which is the same thing as setting what value he pleases on your money, defeats your sanction."

When he wrote his "Remarks and Facts" he opposed interest-bearing paper money, saying that wherever the experiment had been tried "the bills were in a short time gathered up and hoarded; it being a very tempting advantage to have money bearing interest, and the principal all the while in a man's power, ready for bargains that may offer; which money out on mortgage is not." He shifted his ground again when confronted with the serious depreciation of American currency, and wrote to Samuel Cooper (April 22, 1779): "I took all the pains I could in Congress to prevent the depreciation, by proposing first, that the bills should bear interest; this was rejected, and they were struck as you see them. Secondly, after the first emission, I proposed that we should stop, strike no more, but borrow on interest those we had issued. This was not then approved of, and more bills were issued. When, from the too great quantity, they began to depreciate, we agreed to borrow on interest; and I proposed that in order to fix the value of the principal, the interest should be promised in hard dollars. This was objected to as impracticable; but I still continue of opinion, that, by sending out cargoes to purchase it, we might have brought in money sufficient for that purpose, as we brought in powder, etc." He concludes his letter with: —

"This effect of paper currency is not understood on this side the water [France]. And indeed the whole is a mystery even to the politicians, how we have been able to continue

a war four years without money, and how we could pay with paper that had no previously fixed fund appropriated specifically to redeem it. This currency, as we manage it, is a wonderful machine. It performs its office when we issue it; it pays and clothes troops, and provides victuals and ammunition; and when we are obliged to issue a quantity excessive it pays itself off by depreciation."[1]

"Observations concerning the Increase of Mankind and the Peopling of Countries" appeared in 1751, when restraints were being imposed upon manufactures in the colonies. One after another the productive industries were restricted or prohibited. Soon after the appointment of Charles Townshend's committee of the House of Commons to inquire into the subject of iron manufactures, Franklin's pamphlet was published. It was written as a protest against the government's policy of commercial interference and restriction, but it is memorable as an important essay in the history of the theory of population, to which Malthus and Adam Smith and all later students are indebted. Franklin argued that on account of the dearness of labour in the colo-

[1] The gravest apprehensions arose from the depreciation of the paper money. In 1777 a bushel of salt sold at Baltimore for £9. A cow which in 1776 sold for £6 would sell a year later for £18 or £20. Charles Carroll of Carrollton wrote to Franklin (1777): "I have a coat on, the cloth of which is not worth more than ten shillings a yard, and would not have cost more eighteen months ago, which lately cost me four pounds ten a yard. Rye sells as high as ten shillings a bushel, the distillers give that price to distil it into whiskey."

James Read informed George Read (March 23, 1779) that Vattel's "Laws of Nations" would bring $400 and that one volume of Gibbon would cost $40. He acknowledged the receipt (July 13, 1779) of $1000 for a mare, and on the 21st of October he bid as high as $55 for a ream of indifferent writing paper, but did not get it because it sold for $75. In 1780 cassimere was $300 per yard, and jean and habit cloth $60 per yard. — ED.

nies the danger of their interfering with their mother country in trades that depended on manufactures was too remote to require the attention of Great Britain. "But in proportion to the increase of the colonies a vast demand is growing for British manufactures, a glorious market wholly in the power of Britain, in which foreigners cannot interfere, which will increase in a short time even beyond her power of supplying, though her whole trade should be to her colonies; therefore Britain should not too much restrain manufactures in her colonies. A wise and good mother will not do it. To distress is to weaken, and weakening the children weakens the whole family."

It would appear that Malthus had not read Franklin when he published the first edition of his "Essay on Population" (1798). In the preface to the second edition he confessed that "in the course of this inquiry I found that much more had been done than I had been aware of when I first published the essay." Among his predecessors he mentions Franklin, and he adopts from him his rate of increase of population in America. In the "Increase of Mankind" Franklin says: "There are supposed to be now upwards of one million English souls in North America (though it is thought scarce eighty thousand has been brought over sea), and yet perhaps there is not one the fewer in Britain, but rather many more, on account of the employment the colonies afford to manufactures at home. This million doubling, suppose but once in twenty-five years, will, in another century, be more than the people of England, and the greatest number of Englishmen will be on this side the water." And again he says, "Marriages in America are more general, and more generally early, than in Europe. And

if it is reckoned there, that there is but one marriage per annum among one hundred persons, perhaps we may here reckon two; and if in Europe they have but four births to a marriage (many of their marriages being late), we may here reckon eight, of which, if one half grow up, and our marriages are made, reckoning one with another, at twenty years of age, our people must at least be doubled every twenty years."

Malthus also learned from Franklin that luxury acts as a preventive check to population. Grasping the full significance of this fact, Malthus rewrote his "Essay," saying "throughout the whole of the present work I have so far differed in principle from the former as to suppose the action of another check to population which does not come under the head of either vice or misery."

Emigration and all the other problems of population were favourite topics of reflection with Franklin, and remarks concerning them abound in his writings. One of the most powerful of these papers is a letter to the *Public Advertiser* "On a Proposed Act of Parliament for preventing Emigration." As to the necessity of the proposed law, he writes: "The waters of the ocean may move in currents from one quarter of the globe to another, as they happen in some places to be accumulated, and in others diminished; but no law, beyond the law of gravity, is necessary to prevent their abandoning any coast entirely. Thus the different degrees of happiness of different countries and situations find, or rather make, their level by the flowing of people from one to another; and when that level is once found, the removals cease. Add to this, that even a real deficiency of people in any country, occasioned by a wasting war or pestilence, is speedily supplied by earlier and more prolific

marriages, encouraged by the greater facility of obtaining the means of subsistence. So that a country half depopulated would soon be repeopled, till the means of subsistence were equalled by the population. All increase beyond that point must perish, or flow off into more favourable situations. Such overflowings there have been of mankind in all ages, or we should not now have had so many nations. But to apprehend absolute depopulation from that cause, and call for a law to prevent it, is calling for a law to stop the Thames, lest its waters, by what leave it daily at Gravesend, should be quite exhausted."

"The Interest of Great Britain Considered, with regard to her colonies, and the Acquisitions of Canada and Guadaloupe" is commonly known as Franklin's "Canada Pamphlet." It was published anonymously in London in 1760 directly after Wolfe's decisive victory at Quebec. Much speculation was then indulged in concerning the terms of peace. John Douglas, Bishop of Salisbury, wrote a "Letter to two great Men" (Pitt and Newcastle), arguing for the retention of Canada as being of greater value to England than any West Indian possessions. "Remarks on the Letter to two great Men" was anonymously published directly afterward. Franklin's pamphlet is a judicial summary of both publications and a reinforcement of the position taken by John Douglas. Franklin was an imperialist. He looked forward to a time when the whole American continent should be English. He was therefore impressed with the necessity of overcoming the French influence in Canada and Louisiana. The ingenuity and dexterity of the argument in this able and admirable pamphlet had much to do with the retention of Canada by Great Britain.

"Comparison of Great Britain and the United States in regard to the basis of Credit in the two Countries" was written in France early in 1777, in order to increase the jealousy the Dutch and other moneyed people in Europe began to entertain of the English funds, and thereby facilitate the loan of £2,000,000 sterling in compliance with the resolution of Congress, December 23, 1776.

"The Internal State of America" and "Information to those who would remove to America" were written after the treaty of peace and with the object of drawing European emigrants to America.

It was part of Franklin's mission in France to influence public opinion upon the continent, to stir up strife, and to promote a spirit of antagonism to England. This he did through the help of many influential correspondents and by means of "inspired" articles in the European press. His political correspondence with Dr. Ingenhousz in Vienna was meant to be submitted to the Empress and Emperor of Austria. Ideas hurriedly sketched by Franklin in Paris were fully discussed by Dumas in the *Courrier de bas Rhin.* C. S. Pench, editor of *Gazette de Utrecht,* and Aremberg and Sowden in *Gazette de Leyde,* were prompt to print any bit of news or fragment of satire they received from Passy.

It has been said that Franklin was the father of the labour theory of value. In his first economic work, "The Nature and Necessity of a Paper Currency," published when he was twenty-three years of age, he has stated the theory fully and carefully. Mr. W. H. Wetzel in an excellent study of "Benjamin Franklin as an Economist" has shown, however, *that* he was drawing freely upon Sir William Petty's "Essay

on Taxes and Contributions," which he must have read while living in London in 1724.

Under the influence of Petty he wrote (1729): "Suppose one man employed to raise corn while another is digging and refining silver. At the year's end, or at any other period of time, the complete produce of corn and that of silver are the natural price of each other; and if one be twenty bushels and the other twenty ounces, then an ounce of that silver is worth the labor of raising a bushel of that corn. Now if by the discovery of some nearer more easy or plentiful mines, a man may get forty ounces of silver as easily as formerly he did twenty, and the same labor is still required to raise twenty bushels of corn, then two ounces of silver will be worth no more than the same labor of raising one bushel of corn and that bushel of corn will be as cheap at two ounces as it was before at one, *cæteris paribus.*" Forty years later, confirmed in his early opinions by his intercourse with the French physiocrats, he wrote, in the same strain, to Lord Kames (February 21, 1769): "Food is *always* necessary to *all*, and much the greatest part of the labor of mankind is employed in raising provisions for the mouth. Is not this kind of labor, then, the fittest to be the standard by which to measure the values of all other labor, and consequently of all other things whose value depends on the labor of making or procuring them? May not even gold and silver be thus valued? If the labor of the farmer, in producing a bushel of wheat, be equal to the labor of the miner in producing an ounce of silver, will not the bushel of wheat just measure the value of the ounce of silver?"

Turgot has been described as "the first who tried to give a scientific explanation of Natural Interest on capital."

Franklin, a half century before Turgot published his "Reflections," thought out the same "fructification theory." He says that the "natural standard of usury" appears to be "when the security is undoubted, at least the rent of so much land as the money lent will buy. For it cannot be expected, that any man will lend his money for less than it would fetch him in as rent if he laid it out in land, which is the most secure property in the world. But if the security is casual, then a kind of ensurance must be interwoven with the simple natural interest, which may advance the usury very conscionably to any height below the principal itself. Now, among us, if the value of land is twenty years purchase, five per cent is the just rate of interest for money lent on undoubted security."

Under the influence of the physiocrats Franklin came to believe that agriculture was the only legitimate source of wealth; and the most honourable occupation that of the tiller of the soil. It is, he declares, "the most useful, the most independent, and therefore the noblest of employments." "The great business of the continent is agriculture." "The agriculture and fisheries of the United States are the great sources of our increasing wealth. He that puts a seed into the earth is recompensed, perhaps, by receiving twenty out of it, and he who draws a fish out of our water, draws up a piece of silver." "I am one of that class of people that feeds you all and at present is abused by you all. In short I am a farmer." "Finally there seem to be but three ways for a nation to acquire wealth. The first is by *war*, as the Romans did, in plundering their conquered neighbours. This is *robbery*. The second by *commerce*, which is generally *cheating*. The third by *agriculture*, the only *honest way*,

wherein man receives a real increase of the seed thrown into the ground, in a kind of continual miracle, wrought by the hand of God in his favour, as a reward for his innocent life and his virtuous industry."

Agricultural labour, according to his way of thinking, fixes the natural price of commodities. "His rate of interest is a *natural* rate, determined by the rent of so much land as the money lent will buy. Freedom of trade is based on a *natural* right. Manufactures will *naturally* spring up in a country as the country becomes ripe for them. His law of the increase of population is based on the more fundamental law in *nature* that numbers are constantly crowding subsistence. The law of the adjustment of population among the different countries of the world is a *natural* law based on the comparative well being of mankind" (Wetzel). He says of England, "This country is fond of manufactures beyond their real value, for the true source of riches is husbandry. Only agriculture is truly productive of new wealth."

Franklin was an unfaltering believer in free trade: "There cannot be a stronger natural right than that of a man's making the best profit he can of the natural produce of his lands." The latter day schools of free traders seem to have borrowed much from him. In the midst of the recent fiscal controversy in England, Franklin's "Wail of a Protected Manufacturer" was several times reprinted and widely circulated:

"Suppose a country, X, which has three industries — cloth, silk, iron — and supplies three other countries — A, B, and C — therewith, wishes to increase the sale and raise the price of cloth in favour of its cloth-makers.

"To that end X prohibits the importation of cloth from A.

"In retaliation A prohibits silks coming from X.

"The workers in silk complain of the decline in their trade.

"To satisfy them X excludes silk from B.

"B, to retaliate, shuts out iron and hardware against X.

"Then the makers of iron and hardware cry out that their trades are being ruined.

"So X closes its doors against iron and hardware from C.

"In return C refuses to take cloth from X.

"Who is the gainer by all these prohibitions?

"ANSWER

"All the four countries have diminished their common fund of the enjoyments and conveniences of life."

For a particularly clear and cogent presentation of his views upon free trade, the reader should refer to his exceedingly interesting letter to Peter Collinson (April 30, 1764), which is here for the first time printed: "In time perhaps mankind may be wise enough to let trade take its own course, find its own channels, and regulate its own Proportions, etc. At present most of the Edicts of Princes, Placærts, Laws and Ordinances of Kingdoms and States for that purpose, prove political blunders. The Advantages they produce not being *general* for the Commonwealth; but *particular*, to private persons or bodies in the State who procured them, and at the expense of the rest of the people."

Franklin's ideal was a life of thrift, caution, comfort, and husbandry. He regarded with grave apprehension the growth of luxuries in America. "The eyes of other people," he exclaimed, "are the eyes that ruin us." In all seasons he preached the virtues of eager industry and of "settled low content." He wrote to his favourite sister when he was twenty years of age: "I have been thinking what would be a suitable present for me to make, and for you to receive,

as I hear you are grown a celebrated beauty. I had almost determined on a tea-table; but when I consider that the character of a good housewife was far preferable to that of being only a pretty gentlewoman, I concluded to send you a *spinning-wheel*, which I hope you will accept as a small token of my sincere love and affection."[1] In his last will and testament, signed by him two years before his death, the same sentiment found expression in the following bequest: "The King of France's picture set with four hundred and eight diamonds, I give to my daughter, Sarah Bache, requesting however, that she would not form any of those diamonds into ornaments either for herself or daughters, and thereby introduce or countenance the expensive, vain, and useless fashion of wearing jewels in this country." His favourite motto which he never wearied of repeating was "industry and frugality." I have noted seventy-three repetitions of it, and there are many more. To Joseph Galloway (December 1, 1767) he wrote: "You appear to me to point out the true cause of the general distress, viz. the late luxurious mode of living introduced by a too great plenty of cash. It is indeed amazing to consider, that we had a quantity sufficient before the war began, and that the war added immensely to that quantity, by the sums spent among us by the crown, and the paper struck and issued in the province; and now in so few years all the money spent by the crown is gone away, and has carried with it all the gold and silver we had before, leaving us bare and empty, and at the same time more in debt to England than ever we were. But I am inclined to think, that the mere making more money will not mend our circumstances, if we do not return to that industry and

[1] To Jane Franklin, Philadelphia, January 6, 1726–27.

frugality which were the fundamental causes of our former prosperity."

Franklin's school of politics was the General Assembly, the representative body of the province of Pennsylvania. His political discipline was obtained, and his dexterity in managing men and promoting public measures was developed, in the long and bitter feud between the Assembly and the Proprietary. The vast estate of William Penn, comprising about twenty-six million acres, paid to the king one-fifth of the gold and silver which the province might yield. Over it all Penn presided, as captain-general, invested with the power of making war and administering justice. Upon his death the property descended to his sons, John, Thomas, and Richard; one-half going to the eldest son, John, who died in 1746, leaving his share to Thomas. The Proprietaries, as they were called, during the fifteen years of acrimonious controversy, in which Franklin played a principal part, were therefore Thomas and Richard Penn, the former being owner of three-fourths of the vast property. The Proprietaries ruled by a deputy governor, an official who lived a troubled life. He held his office by appointment from his masters in England; he derived his salary from the Assembly. He received explicit "instructions" from the Proprietaries, defining precisely the terms upon which he could treat with the people. However he acted he was sure to offend. If he obeyed his "instructions" he forfeited his salary; if he ignored his "instructions" he sacrificed his office. Money was imperatively needed for public works and for the defence of the province. The Assembly would not vote money unless the property of the Proprietaries should be taxed on like terms with other estates. The gov-

ernor, obedient to the inalterable "instructions," vetoed every measure which did not exempt that property from taxation. Even in times of great public peril the Penns refused to permit the slightest infringement of their prerogative.

The Quakers, who represented two-fifths of the English population, could not be induced to vote money for military purposes. In their quarrel with the Proprietaries they desired "that they [the Penns] would either exercise the Government over us themselves, or according to the original Contract *leave themselves fully represented* by a person of integrity, candour and a peaceable disposition for while their Deputy is of a different disposition, and continues limited by Instructions inconsistent with our Rights and Liberties we cannot expect the Government will be conducted with Prudence or supported with satisfaction."

Every part of the civil government imposed some duty upon Franklin. The governor put him into the commission of the peace; the corporation of the city chose him of the common council, and soon after an alderman; and the citizens at large chose him a burgess to represent them in the Assembly. Of most of these municipal activities no record remains, and he has stinted his narrative of the transactions of the Assembly. The Proprietaries were greatly incensed at his constant efforts to secure equitable taxation of all lands in the province, but he seems, after 1754, to have made no attempt by direct or indirect means to win their favour.

At the time of the Albany Conference, Franklin could say of Thomas Penn, with modesty enough and likelihood to lead it: "The Truth is, I have sought his *Interest* more than his *Favour;* others perhaps have sought both, and ob-

tain'd at least the latter. But in my Opinion Great Men are not always best serv'd by such as show on all Occasions a blind Attachment to them." A year after Braddock's disaster he said of the proprietor and his party: "If I have offended them by *acting right*, I can, whenever I please, reverse their Displeasure *by acting wrong*. . . . I have some natural Dislike to Persons who so far *love Money* as to be *unjust* for its sake: I despise their *meanness* (as it appears to me) in several late Instances, most cordially, and am thankful that I never had any Connection with them, or Occasion to ask or receive a Favour at their Hands. For now I am persuaded that I do not oppose their Views from Pique, Disappointment or personal Resentment, but, as I think, from a Regard to the Publick Good. I may be mistaken in what is that Publick good, but at least I mean well. And whenever they appear to me to have the Publick Good in View, I think I would as readily serve them as if they were my best Friends. I am sometimes asham'd for them, when I see them differing with their People for Trifles, and instead of being ador'd as they might be, like Demi Gods, become the Objects of universal Hatred and Contempt."[1]

Of Franklin's political writings "Plain Truth," "The Plan of Union," "Letters to Shirley," "Militia Act," "Dialogue of X. Y. Z.," "A Narrative of the late Massacre in Lancaster County," "Cool Thoughts," and the "Preface to Joseph Galloway's Speech," belong to this period of warfare between the Assembly and the Proprietary.

"Plain Truth" was written in November, 1747, at a time when Pennsylvania was threatened by French and Spanish privateers. Ships were captured and plantations plundered,

[1] To Peter Collinson, November 5, 1756.

while the Quakers, true to their principles, refused to raise troops or to contribute to the fortification of the river. The wealthy merchants and leaders, opposed to the Quakers, refused to put the county and city in a state of defence because they would not lay out their money to protect the Quakers. This was the situation that called forth the indignation of Franklin: "And is our prospect better," he asked, after discussing the invincible obstinacy of the Quakers, "if we turn our Eyes to the Strength of the *opposite Party*, those Great and rich Men, Merchants, and others, who are ever railing at Quakers for doing what their Principles seem to require, and what in Charity we ought to believe they think their Duty, but take no Step themselves for the publick Safety? They have so much Wealth and Influence, if they would use it, that they might easily, by their Endeavours and Example raise a military Spirit among us, make us fond, studious of, and expert in, martial Discipline, and affect every Thing that is necessary, under God, for our Protection. But *Envy* seems to have taken Possession of their Hearts, and to have eaten out and destroyed every generous, noble, publick-spirited Sentiment. *Rage* at the Disappointment of their little Schemes for Power, gnaws their Souls, and fills them with such cordial Hatred to their Opponents, that every Proposal, by the Execution of which *those* may receive benefit as well as themselves, is rejected with Indignation. 'What,' say they, 'shall we lay out our Money to protect the Trade of Quakers? Shall we fight to defend Quakers? No; let the Trade perish and the City burn; let what will happen, we shall never lift a Finger to prevent it.' Yet the Quakers have *Conscience* to plead for their Resolution not to fight, which these Gentlemen have not. . . .

'Till of late, I could scarce believe the Story of him who refused to pump in a sinking Ship, because one on board, whom he hated, would be saved by it as well as himself. But such, it seems, is the unhappiness of human Nature, that our Passions, when violent, often are too hard for the united force of Reason, Duty, and Religion."

The martial spirit rose in the colony with the reading of this spirited pamphlet. Thousands of men voluntarily subscribed themselves members of the association of defence, formed themselves into companies and regiments, chose their own officers, and met every week to be instructed in military discipline.

In 1754 war with France being again apprehended a Congress of Commissioners from the different colonies was, by order of the Lords of Trade, to be assembled at Albany, there to confer with the chiefs of the Six Nations, "concerning the means of defending both their country and ours." Governor Hamilton acquainted the House with the order, and appointed Norris and Franklin to join Thomas Penn and Secretary Peters, as commissioners to act for Pennsylvania. A rather full representation of the state of the colonies was drawn up by them and sent home to the ministry with the proceedings. Franklin projected the Plan of Union and drew it, but he was obliged, contrary to his judgment, to alter many things in it, and he foresaw that the colonies were unlikely to act upon it so as to agree to it. He wrote to Collinson (December 29, 1754): "Everybody cries, a Union is absolutely necessary; but when they come to the manner and form of the union, their weak Noddles are perfectly distracted. So if ever there be an Union it must be formed at home by the Ministry and Parliament."

The several colonies, intent upon their particular disputes, neglected and obstructed the general interest. Again and again Franklin reiterated his warning that no American war could ever be well carried on without some plan of UNION. The Assembly voted supplies of money for the conduct of the war, and the governor refused to allow the property of the Proprietary to be taxed, "except for a trifling part of his estate; the quit-rents, located unimproved lands, Money at interest, etc., being exempted by instructions to the governor."

After the rejection of the Albany Plan of Union, Franklin wrote to Collinson: "I am heartily sick of our present situation; I like neither the governor's conduct, nor the Assembly's; and having some share in the Confidence of both, I have endeavoured to reconcile 'em but in vain, and between 'em they make me very uneasy. I was chosen last Year in my absence and was not at the Winter sitting when the House sent home that Address to the King which I am afraid was both ill-judged and ill-timed. If my being able now and then to influence a good Measure did not keep up my spirits I should be ready to swear never to serve again as an Assembly Man, since both sides expect more from me than they ought, and blame me sometimes for not doing what I am not able to do, as well as for not preventing what was not in my power to prevent. The Assembly ride restive; and the Governor tho' he spurs with both heels, at the same time reins-in with both hands, so that the Publick Business can never move forward, and he remains like St. George on the sign, always a Horseback and never going on. Did you never hear this old catch?

"There was a mad man — he had a mad wife,
And three mad sons beside;

And they all got — upon a mad horse,
And madly they did ride."

'Tis a compendium of our Proceedings and may save you the Trouble of reading them." [1]

A few weeks after these words were written Braddock met his terrible defeat near Fort Duquesne. Franklin had been urgent in obtaining supplies for the king's troops. He had been sent to Virginia to explain why the Assembly had refused to vote money for the king's service, and as Postmaster-general to arrange a plan of communication between General Braddock and the colonial governors.

Braddock's progress was impeded by want of wagons. His officers had scoured Virginia and Maryland in vain in search of wagons. Franklin undertook to provide the requisite means of transportation. With his son he rode to Lancaster and published an advertisement to the farmers stating the terms upon which wagons and horses were to be hired.

The Pennsylvanian farmers liked not the security that was offered. Franklin has told the story in the Autobiography, and has told how he partly overcame the suspicions and prejudices of the farmers, and how he became personally responsible for the wagons that were at last sent to Braddock, but he has not told the sequel to that story.

General Braddock, delighted at the postmaster's success by which his march northward was made possible, wrote to the Secretary of State (June 5, 1755):—

"Before I left Williamsburg, the Quartermaster-General told me that I might depend upon twenty-five hundred horses and two hundred wagons from Virginia and Maryland; but

[1] To Peter Collinson, June 26, 1755.

I had great reason to doubt it, having experienced the false dealings of all in this country with whom I had been concerned. Hence, before my departure from Frederic, I agreed with Mr. Benjamin Franklin, postmaster in Pennsylvania, who has great credit in that province, to have one hundred and fifty wagons, and the necessary number of horses. This he accomplished with promptitude and fidelity, and it is almost the only instance of address and fidelity which I have seen in all these provinces."

Franklin became personally responsible for the payment for horses, wagons, and provisions. He advanced for the service, of his own, about thirteen hundred pounds. As soon as the disaster to Braddock was known he was called upon for the valuation which he had given bonds to pay. William Shirley wrote from Oswego (September 17, 1755), to thank him for his patriotic and effective zeal. He said: "As to the affair of the wagons and horses, which you engaged for the use of the late General Braddock's army, I think it of the utmost consequence that all such engagements or contracts for the public service should be most punctually complied with; and, had I known the circumstances of this, I should before now have enabled you to make good those you entered into, by the late General's order, for the expedition to the Ohio; not only because common justice demands it, but that such public spirited services deserve the highest encouragement. I now write to Governor Morris to appoint three good men to liquidate and adjust those accounts, and shall direct Mr. Johnson, the paymaster, immediately to pay what they report to be due for that service, according to the enclosed warrant.

"Though I am at present engaged in a great hurry of

business, being to move from hence in a very few days for Niagara, I cannot conclude without assuring you, that I have the highest sense of your public services in general, and particularly that of engaging those wagons without which General Braddock could not have proceeded."

Fortunately for Franklin, Braddock had returned to him the major part of the money he had advanced, but the remainder was never paid. The accounts were examined and certified to be correct, but Lord Loudoun, who succeeded General Shirley, declined to give an order upon the paymaster for the amount, declaring that he did not wish to mix his accounts with those of his predecessors. He recommended Franklin to apply to the Treasury in London, where, doubtless, payment would promptly be made. Not a penny was ever received by Franklin from the Treasury.

The events of that year were chronicled in a pamphlet entitled a "Brief View of the Conduct of Pennsylvania for the Year 1755." It was believed in England to be written by William Smith, but Franklin wrote to Collinson: "'Tis generally supposed to be the Governor's (with some Help from one or two others) as his Messages are fill'd with the same Sentiments and almost the same Expressions. He is, I think, the rashest and most indiscreet Governor that I have known, and will do more Mischief to the Proprietaries Interest than Good, and make them more Enemies than Friends." [1]

The Assembly showed no inclination to reply to the "Brief View." [2] The design evidently was to get the Quakers

[1] To Peter Collinson, August 27, 1755.

[2] "A Brief State of the Province of Pennsylvania. In a Letter from a Gentleman who has resided many years in Pennsylvania to his Friend in London." London, 1756 (written December, 1754). "A Brief View of the Conduct of Pennsylvania, for the year 1755. In a Second Letter to a Friend in London." *London, 1756.*

out of the Assembly on the pretence that they could not or would not do the duty of Assemblymen in defending the country. "If the end," said Franklin, "was simply to get the Country defended by Grants of Money the Quakers have now shown that they can give and dispose of Money for that purpose as freely as any People. If this does not give Satisfaction, the Pique against them must seem to be personal and private and not formed on Views for the Publick good. I know the Quakers now think it their Duty, when chosen, to consider themselves as Representatives of the *Whole People*, and not of their own Sect only; they consider the public Money as raised from and belonging to the *Whole Publick*, and not to their Sect only, and therefore tho' they can neither bear Arms themselves nor compel others to do it, yet very lately when our Frontier Inhabitants who are chiefly Presbyterians or Churchmen, thought themselves in Danger, and the Poor among them were unable to provide Arms, and petitioned the House, a Sum was voted for these purposes, and put into the Hands of a Committee to procure and supply them. . . . To me it seems that if Quakerism (as to the matter of Defence) be excluded the House, there is no Necessity to exclude Quakers, who in other Respects make good and useful Members. I am supposed to have had a principal Share in prevailing with the House to make their late generous Grants to Braddock and Shirley, and the Bill for giving £50,000, and the Governor and his few Friends are angry with me for disappointing them by that Means of a fresh Accusation against the Quakers." [1]

Intense feeling was engendered among the partisans of

[1] To Collinson, August 27, 1755.

the Proprietary and the adherents of the Assembly. Malicious falsehoods were circulated concerning Franklin. Those who caressed him, to use his own words, a few months before, were now endeavouring to defame him everywhere by every base act. Such was his abhorrence of this kind of altercation that he was sorely tempted to remove to Connecticut. The far-away echo of these slanders came to him from his friends abroad. Many of them were but trifling and ludicrous vapourings of envy and impotent malice. He was accused of riding abroad surrounded by soldiers with drawn swords, a romance which grew out of the circumstance that upon his departure for Virginia, twenty officers of his regiment with about thirty grenadiers accompanied him from his house to the ferry, about three miles from town, and took it in their heads to ride about two hundred yards with their swords drawn. "This was the only Instance of the Kind, for tho' a greater Number met me at my Return, they did not ride with drawn Swords, having been told that Ceremony was improper unless to compliment some Person of great Distinction. I who am totally ignorant of Military Ceremonies, and above all things averse to making Show and Parade, or doing any useless Thing that can serve only to excite Envy or provoke Malice, suffer'd at the Time much more Pain than I enjoy'd Pleasure and have never since given an Opportunity for any thing of the Sort." [1]

Terrible as was the disaster that had overtaken Braddock, and in the midst of the general apprehension of an invasion of the province, the Assembly and the governor maintained their hostile and unyielding attitude. "The shocking news of the strange, unprecedented and ignomini-

[1] To Collinson, November 5, 1756.

ous defeat of Braddock," said the younger Franklin, "had no more effect upon Governor Morris than the miracles of Moses had on the heart of Pharaoh." In the autumn the war was resumed. The Indians scalped white families within seventy-five miles of Philadelphia. The Penns, alarmed by an indignant public sentiment in England, ordered £5000 to be added in their name to any sum that might be voted by the Assembly for defence. The din of controversy ceased for a time. The Assembly voted £60,000, exempting, under protest, the estates of the Proprietaries, and appointed Franklin one of the seven commissioners to expend it.

A militia bill prepared by Franklin was hurriedly adopted. Many, however, refused to enlist because Quakers were exempted from bearing arms. To enlighten the public mind with regard to the Militia Act, and to shame the recalcitrant into compliance with its terms, he wrote for the *Pennsylvania Gazette*, "A Dialogue between X. Y. & Z. concerning the present State of Affairs in Pennsylvania." The article had great effect, and its concluding appeal was taken to heart by many readers: "O my friends, let us on this occasion cast from us all these little party views, and consider ourselves as Englishmen and Pennsylvanians. Let us think only of the service of our King, the honour and safety of our country, and vengeance on its murdering enemies. If good be done, what imports it by whom 'tis done? The glory of serving and saving others is superior to the advantage of being served or secured. Let us resolutely and generously unite in our country's cause (in which to die is the sweetest of all deaths), and may the God of Armies bless our honest endeavours."

The remainder of Franklin's political pamphlets and addresses occasioned by the proprietary quarrel and the events of Pennsylvanian history lie beyond the period at which Franklin ceased to tell the story of his life, and they may therefore more appropriately be described in the terminal essay upon the later life of Franklin in the tenth volume of this edition.

I must in this place, however, refer to the inclusion in Mr. Bigelow's fifth edition of the "Life of Benjamin Franklin," of "A Speech intended to have been spoken on the Bill for Altering the Charters of the Colony of the Massachusetts Bay." This speech has always been attributed to Jonathan Shipley, the Bishop of St. Asaph. Mr. Bigelow is convinced that Franklin was really the author of it. He attributes it to him on the strength of the form and matter of the document, which are such that he believes "no man in England, or elsewhere in 1774, could have written this discourse but Benjamin Franklin." He finds nothing in the early editions of the speech to give any intimation of its parentage. "It does not state, but seems to deliberately avoid stating who it was that 'intended' that it should be spoken on that occasion."

With extreme reluctance I find it impossible to accept Mr. Bigelow's conclusions. He has lived for many years in close companionship with the works of Franklin. He knows more about their illustrious author than any living scholar. In this instance, however, there are countervailing circumstances that seem to me to be fatal to his contention. Bishop Shipley and Benjamin Franklin were intimate friends, who lived together upon terms of extremest confidence and affection. The bishop looked upon the political situation

through the spectacles of Franklin, and he had the cause of his friend and of his friend's country so much at heart that to aid it he was willing to sacrifice his personal advantage and profit. It is not surprising therefore that out of the correspondence and conversation of these two friends, so sympathetic and patriotic, should come from the lesser man works which expressed the convictions and echoed the manner of the greater one. Until the present time no doubt as to the authorship of the speech has arisen. It has traditionally been accepted as the work of the Bishop of St. Asaph. In the collection of Franklin papers in The American Philosophical Society is a list of pamphlets relating to America written between 1769 and 1775. And on this list, in Franklin's handwriting, appears "Speech intended to be delivered by the Bishop of St. Asaph in the House of Lords."

When news reached Franklin that his dearest friend in Great Britain was dead, he wrote a tender and affectionate letter of condolence to the daughter, Miss Catherine Louisa Shipley (April 27, 1789): "That excellent man has then left us! His departure is a loss, not to his family and friends only, but to his nation, and to the world; for he was intent on doing good, had wisdom to devise the means, and talents to promote them. His 'Sermon before the Society for Propagating the Gospel,' and his 'Speech intended to have been spoken' are proofs of his ability as well as his humanity. Had his counsels in those pieces been attended to by the ministers, how much bloodshed might have been prevented, and how much expense and disgrace to the nation avoided."

I cannot believe that, if the facts were as Mr. Bigelow imagines, Franklin, in writing to assuage a daughter's grief, would have thus referred in terms of high eulogy to a work

of his own put forth to the world under the other's name. His praise would have been an idle mockery and his professions of sympathy a shallow pretence.

SATIRES AND BAGATELLES

That species of drollery which is called American humour, first assumed in "Poor Richard's Almanac," and in the columns of the *Pennsylvania Gazette*, the literary form by which it has since been known. Humour was native and spontaneous with Franklin. The moment after he had seen the serious side of anything he saw the comic side of it. His juvenile contributions to the *New England Courant* abound with rollicking fun. Upon his first visit to England he says that he was esteemed by his fellow-journeymen printers "a pretty good *Riggite*, that is a jocular verbal satirist." It is said that Jefferson explained that Franklin was not asked to write the Declaration of Independence because he could not have refrained from putting a joke into it. Like Talleyrand, he found nonsense singularly refreshing, and said that mirth and pleasantry "have a secret charm in them to allay the heats and tumours of our spirits and to make a man forget his restless resentments."

It is surprising that Franklin's editors have never reprinted the Dogood papers. There can be no doubt about their authorship. They bear the unmistakable Franklin stamp. And Franklin himself mentions them in the memoranda which he jotted down for his guidance when about to begin the Autobiography. They have considerable literary merit; they are full of interest; and they abound in humour and satire. Franklin was but sixteen years old

when he commenced his literary career with the first of these anonymous papers, stealthily written, and surreptitiously and timidly thrust under the door of his brother's printing house. The fourteen Dogood papers, here printed for the first time since they were consigned to the dusty sepulchre of the *New England Courant*, are never dull, and they reveal with remarkable completeness the mind of the precocious, restless, inquisitive boy. Mrs. Dogood writes "of the lamentable Condition of Widows," and of those "penitent Mortals of the Fair Sex that are like to be punished with their Virginity until old Age for the Pride and Insolence of their Youth." In one letter is "a Receipt to make a New England Funeral Elegy," in another a diatribe upon "Pride and Hoop Petticoats," and in another a sharp satire upon Harvard College.

The *Pennsylvania Gazette* was published by Franklin from 1729 to 1757, and in its earlier years at least was practically written by him from beginning to end. Its paragraphs are full of extravagance, recklessness, and occasional irreverence. A correspondent is made to write: "I am about courting a girl I have had but little acquaintance with; how shall I come to a knowledge of her faults, and whether she has the virtues I imagine she has?" "Commend her among her female acquaintance" is the unexpected answer.

Another paragraph runs: "We hear from Birmingham, in Warwickshire, that a certain Tradesman's Wife of that Place dying on a Tuesday, her Husband buried on the Wednesday, married again on the Thursday, his new Wife was brought to bed on the Friday, and he hanged himself on the Saturday. *A fine week's work truly!*"

Here is a bit of local news as reported by Franklin: "An

unhappy man, one Sturgis, upon some difference with his wife, determined to drown himself in the river, and she (kind wife) went with him, it seems, to see it faithfully performed, and accordingly stood by silent and unconcerned during the whole transaction: He jumped in near Carpenter's Wharf, but was timely taken out again, before what he came about was thoroughly effected, so that they were both obliged to return home as they came, and put up for that time with the disappointment."

He would sometimes write a fictitious letter to the newspaper, and follow it with several imaginary replies in the next issue. Upon one occasion he prints: —

"MR. FRANKLIN:

Pray let the prettiest Creature in this Place know (by publishing this), that if it was not for her Affectation she would be absolutely irresistible."

Next week (November 27, 1735) appeared the following replies: —

"MR. FRANKLIN:

I cannot conceive who your Correspondent means by 'the prettiest creature' in this Place; but I can assure either him or her, that she who is truly so, has no Affectation at all."

"SIR, Since your last Week's Paper I have look'd in my Glass a thousand Times, I believe, in one way; and if it was not for the Charge of Affectation I might, without Partiality believe myself the Person meant."

"MR. FRANKLIN: I must own that several have told me, I am the prettiest Creature in this Place; but I believe

I shou'd not have been tax'd with Affectation if I cou'd have thought as well of them as they do of themselves."

"SIR: Your sex calls me pretty; my own affected. Is it from Judgment in the one or Envy in the other?"

"MR. FRANKLIN: They that call me affected are greatly Mistaken; for I don't know that I ever refus'd a kiss to any Body but a Fool."

"FRIEND FRANKLIN: I am not at all displeased at being charged with Affectation. Thou know'st the vain People call Decency of Behaviour by that Name."

A peruke maker in Second Street, Philadelphia, advertised that he would "leave off the shaving business after the 22d of August next." Franklin's comment was that barbers were peculiarly fitted for politics, for they were adept shavers and trimmers, "which will naturally lead us to consider the near relation which subsists between shaving, trimming and politics." He concludes with congratulating the people upon the barber's retirement from business, saying, "I am of opinion that all possible encouragement ought to be given to Examples of this kind." The indignant advertiser wrote to the publisher for an explanation of his eccentric comment, whereupon Franklin replied that he had no animosity against the person whose advertisement he had made the topic of his paper, and that his article should be condemned he could only impute to a "Want of taste and relish for pieces of that force and beauty which none but a University bred gentleman can produce."

He does not spare himself when he is in the mood for raillery. "On Thursday last," he says in the *Gazette*, "a

certain P——r ('tis not customary to give names at length on these occasions) walking carefully in clean clothes over some barrels of tar on Carpenter's Wharf, the head of one of them unluckily gave way, and let a leg of him in above the knee. Whether he was upon the Catch at that time, we cannot say, but 'tis certain he caught a *Tar-tar*. 'Twas observed he sprang out again right briskly, verifying the common saying, As nimble as a Bee in a Tar barrel. You must know there are several sorts of bees: 'tis true he was no honey bee, nor yet a humble bee: but a *Boo-Bee* he may be allowed to be, namely B. F."

He inserted in the *Gazette* of June 30, 1737, the following advertisement of his wife's lost property: "Taken out of a Pew in the Church some months since, a Common-Prayer Book, bound in Red, gilt, and letter'd D. F. on each corner. The Person who took it is desir'd to open it, and read the Eighth Commandment, and afterwards return it into the same Pew again; upon which no further Notice will be taken."

Here is a gibe at a rival newspaper: —

"MR. FRANKLIN: —

I am the Author of a Copy of Verses in the last *Mercury*. It was my real Intention to appear open, and not basely with my Vizard on, attack a Man who had fairly unmasked. Accordingly I subscribed my Name at full Length, in my Manuscript sent to my Brother B——d; but he, for some incomprehensible Reason, inserted the two initial Letters only, viz. B. L. 'Tis true, every Syllable of the Performance discovers me to be the Author; but as I meet with much Censure on the Occasion, I request you to inform

the Publick, that I did not desire my name should be conceal'd; and that the remaining Letters are, O, C, K, H, E, A, D."

Unfortunately, it is impossible without offence to quote many of his briefer paragraphs. We may track him through the thirty years of the *Gazette* by the smudgy trail he leaves behind him. His humour is coarse and his mood of mind Rabelaisian. His "salt imagination" delights in greasy jests and tales of bawdry. He came of a grimy race of hard-handed blacksmiths, and they had set their mark on him. With all his astonishing quickness and acuteness of intellect and his marvellous faculty of adaptation, he remained to the end of life the proletarian, taking an unclean pleasure in rude speech and coarse innuendo. He out-Smolletts Smollett in his letters to young women at home and experienced matrons abroad. Among the manuscripts in the Library of Congress, and in the columns of his newspaper and the introductions to "Poor Richard," are productions of his pen, the printing of which would not be tolerated by the public sentiment of the present age. It is no use blinking the fact that Franklin's animal instincts and passions were strong and rank, that they led him to the commission of many deplorable *errata* in his life, and that the taint of an irredeemable vulgarity is upon much of his conduct. As is said of Angelo in the play, "I am sorry, one so learned and so wise, should slip so grossly."

The best of the essays in the *Gazette* I have reprinted, including six that have not previously been included in the collected works. "The Essays on Government" which were published by Sparks and Bigelow, are acknowledged in a

later issue of the *Gazette* to have been written by John Webbe.

His fondness for practical joking led him to compose certain canards which to his great amusement deceived many careful readers. Such were the famous "Speech of Polly Baker," "Edict of the King of Prussia," "Supplement to the *Boston Chronicle*," "Parable against Persecution," "A Paraphrase of a Chapter of Job," "On the Means of disposing the Enemy to Peace." Jefferson tells the story of the Abbé Raynal's credulity in accepting the trial of Polly Baker as sober history. "The Doctor and Silas Deane," he says, "were in conversation one day at Passy on the numerous errors in the Abbé's 'Histoire des deux Indes,' when he happened to step in. After the usual salutations, Silas Deane said to him, 'The Doctor and myself, Abbé, were just speaking of the errors of fact into which you have been led in your history.' 'Oh, no, Sir,' said the Abbé, 'that is impossible. I took the greatest care not to insert a single fact for which I had not the most unquestionable authority.' 'Why,' says Deane, 'there is the story of Polly Baker and the eloquent apology you have put into her mouth, when brought before a court of Massachusetts to suffer punishment under a law, which you cite, for having had a bastard. I know there never was such a law in Massachusetts.' 'Be assured,' said the Abbé, 'you are mistaken, and that that is a true story. I do not immediately recollect indeed the particular information on which I quote it, but I am certain that I had for it unquestionable authority.' Doctor Franklin, who had been for some time shaking with restrained laughter at the Abbé's confidence in his authority for that tale, said, 'I will tell you, Abbé, the origin of that story.

When I was a printer and editor of a newspaper, we were sometimes slack of news, and to amuse our customers, I used to fill up our vacant columns with anecdotes, and fables and fancies of my own, and this of Polly Baker is a story of my own making, on one of those occasions.' The Abbé, without the least disconcert, exclaimed with a laugh, 'Oh, very well, Doctor, I had rather relate your stories than other men's truths.'" [1]

A similar experience Franklin enjoyed when "An Edict of the King of Prussia" was published. He wrote to his son (October 6, 1773): "What made it the more noticed here was, that people in reading it were, as the phrase is, *taken in*, till they had got half through it, and imagined it a real edict, to which mistake I suppose the King of Prussia's *character* must have contributed. I was down at Lord Le Despencer's when the post brought that day's papers. Mr. Whitehead was there, too (Paul Whitehead the author of 'Manners'), who runs early through all the papers, and tells the company what he finds remarkable. He had them in another room, and we were chatting in the breakfast parlour, when he came running into us, out of breath, with the paper in his hand. 'Here!' says he, 'here's news for ye! Here's the King of Prussia, claiming a right to this kingdom!' All stared, and I as much as anybody, and he went on to read it. When he had read two or three paragraphs, a gentleman present said, 'Damn his impudence, I dare say we shall hear by next post, that he is upon his march with one hundred

[1] "The Writings of Thomas Jefferson," Vol. X, p. 118 (note).

Balzac says that Franklin confessed the authorship of this canard in M. Neckar's salon.

I have reprinted "The Trial of Polly Baker," as it is, in contempt of question, his hand. But I have searched in vain for it in the *Gazette*. — ED.

thousand men to back this.' Whitehead, who is very shrewd, soon after began to smoke it, and, looking in my face, said, 'I'll be hanged if this is not some of your American jokes upon us!' The reading went on, and ended with abundance of laughing, and a general verdict that it was a fair hit; and the piece was cut out of the paper and preserved in my Lord's collection."

This keen and severe satire was first published in the *Public Advertiser* and the edition was quickly exhausted. It was reprinted in the *Chronicle* and created a genuine sensation. Lord Mansfield said of it, that "it was very able and very artful indeed." Richard Bache wrote to Franklin (January 1, 1774): "I am gratified to have it under your own hand that the *Edict* was of your writing . . . it was considered to be yours before and had been published as a thing much admired in most of our papers. . . . You are charged likewise with being the author of 'The Method to make a little State of a great one.' I hope the Public are not mistaken in this, for I think it a piece of great merit. Your friend General Lee, who has been here sometime and who thinks himself well acquainted with your style, is the only man in this place that thinks it is not yours."

Upon his private press at Passy, Franklin printed a pretended "Supplement to the *Boston Independent Chronicle*." In typography, style, advertisements, and all things it simulated exactly the appearance of a Boston newspaper. The barbarities committed by the Indian allies of Great Britain suggested this savage piece of satire, which rises to the height of Swift. After a ghastly invoice of eight packages containing a thousand scalps, alleged to have been taken by the Seneca Indians in English pay, and "cured, dried, hooped,

and painted with all the Indian triumphal marks," in order to be transmitted to England, the article quotes an imaginary letter from an Indian chief to Governor Haldimand. "Father, we wish you to send these scalps over the water to the great King, that he may regard them and be refreshed; and that he may see our faithfulness in destroying his enemies, and be convinced that his presents have not been made to ungrateful people." Franklin sent copies of the "Supplement" to Dumas in Holland, saying: "Enclosed I send you a few copies of a paper that places in a striking light the English barbarities in America, particularly those committed by the savages at their instigation. The form may perhaps not be genuine but the substance is truth.[1] . . . Make any use of them you may think proper to shame your Anglomanes, but do not let it be known through whose hand they came." In the second edition, from which certain fictitious advertisements which had appeared in the first edition were omitted, he inserted a pretended letter from John Paul Jones to Sir Joseph Yorke, Ambassador to the States-General of the United Provinces. The statesman had called the captain "a pirate." Jones is made to reply: "A Pirate is defined to be hostis humani generis (an enemy to all mankind). It happens, sir, that I am an enemy to no part of mankind, except your nation, the English; which nation, at the same time comes much more within the definition; being actually an enemy to, and at war with, one whole quarter of the world, America, considerable

[1] Gates called Burgoyne "the polite Macaroni," because he paid for scalps. A Philadelphia newspaper in 1887 treated this fine satire seriously, and said that the letter was found in the baggage of General Burgoyne after his surrender. — ED.

part of Asia and Africa, a great part of Europe, and in a fair way of being at war with the rest." After a brief, vivid, and terrible description of the war of rapine waging against America, and of the malice, mischief, and murder committed by king and Parliaments, he concludes: "One is provoked by enormous wickedness: but one is ashamed and humiliated at the view of human baseness. It afflicts me therefore to see a gentleman of Sir Joseph Yorke's education and talents, for the sake of a red riband and a paltry stipend, mean enough to style such a monster *his master*, wear his livery, and hold himself ready at his command even to cut the throats of fellow subjects. This makes it impossible for me to end my letter with the civility of a compliment, and obliges me to subscribe myself, simply,

"JOHN PAUL JONES,
"whom you are pleased to style *a pirate*."

Europe accepted the "Supplement" as genuine, and shuddered at the horrors of the American fratricidal war. Horace Walpole, at least, was not deceived. He wrote to the Countess of Ossory: "Have you seen in the papers an excellent letter of Paul Jones to Sir Joseph Yorke? *Elle nous dit bien des vérités!* I doubt poor Sir Joseph cannot answer them! Dr. Franklin himself, I should think, was the author. It is certainly written by a first-rate pen, and not by a common man-of-war."

A very similar piece was a letter purporting to emanate from a petty German prince and to be addressed to his officer in command in America. It contains congratulations upon the large number of Hessians slain at Trenton, and is written in a spirit of ferocious merriment at the

prospect of substantial financial returns for the lives of the wretched mercenaries. "My trip to Italy, which has cost me enormously, makes it desirable that there should be a great mortality among them. You will therefore promise promotion to all who expose themselves; you will exhort to seek glory in the midst of dangers; you will say to Major Maundorff that I am not at all content with his saving the 345 men who escaped the massacre at Trenton. Through the whole campaign he has not had ten men killed in consequence of his orders. Finally let it be your principal object to prolong the war and avoid a decisive engagement on either side, for I have made arrangements for a grand Italian opera, and I do not wish to be obliged to give it up."

One of the subtlest and severest of Franklin's satires was veiled under the title "Proposed New Version of the Bible." He fancied that the reading of "that excellent book" had been neglected because of its obsolete style, and therefore thought it would be well to procure a new version in which, while preserving the sense, the turn of phrase and manner of expression should be modern. As a sample of the kind of version he would recommend he modernized six verses of the first chapter of the Book of Job, and with marvellous dexterity converted the famous passage into a shrewd satire upon regal government.

Verses 6–11: "And it being *levee* day in heaven, all God's nobility came to court, to present themselves before him; and Satan also appeared in the circle, as one of the ministry.

"And God said to Satan, You have been some time absent; where were you? And Satan answered, I have been at my country seat, and in different places visiting my friends.

"And God said, Well, what think you of Lord Job?

You see he is my best friend, a perfectly honest man, full of respect for me, and avoiding everything that might offend me.

"And Satan answered, Does your Majesty imagine that his good conduct is the effect of mere personal attachment and affection?

"Have you not protected him, and heaped your benefits upon him till he is grown enormously rich?

"Try him;—only withdraw your favour, turn him out of his places, and withhold his pensions and you will soon find him in the opposition."

It seems almost incredible that the point of this prodigious satire should have been missed by any thoughtful reader; yet true it is that one of the most sagacious of recent critics and one of the most learned of living historians have been completely deceived by it.

Matthew Arnold commented upon it: "I remember the relief with which, after long feeling the sway of Franklin's imperturbable common sense, I came upon a project of his for a new version of the Book of Job, to replace the old version, the style of which, says Franklin, has become obsolete and thence less agreeable. 'I give,' he continues, 'a few verses, which may serve as a sample of the kind of version I would recommend.' We all recollect the famous verse in our translation: 'Then Satan answered the Lord, and said, Doth Job fear God for nought?' Franklin makes this, 'Does your Majesty imagine that Job's good conduct is the effect of mere personal attachment and affection?' I well remember how when first I read that I drew a deep breath of relief, and said to myself, 'After all, there is a stretch of humanity beyond Franklin's victorious good sense.' The

lover of literary curiosities may be almost sorry that Franklin's proposal never got any further." We may fancy the Olympian laughter with which Franklin would have greeted the extraordinary judgment of this "high-gravel blind" critic.

He delighted in this kind of mystification. He set Miss Shipley searching the Bible in vain to find where Franklin read that Methusalah slept in the open air.[1]

He wrote, in imitation of Scriptural language, "A Parable against Persecution," which he committed to memory, and called it "Genesis LI," and read it by heart out of his Bible, "obtaining the remarks of the Scripturians upon it, which were sometimes very diverting."

Among the papers of William Parsons, surveyor-general of Pennsylvania, the following account of the parable is found: —

"Dr Franklin in England about 1755 Supporting Dr Locks Treatise book on Toleration was much dificuelted in Argument with Lady Jane, a maiden Sister to the Earl of Thanet who opposed the doctrine. after several fruitless Attemps the Doct told Lady Jane that if she would consult her Bible she would find 'Locks' Doctrine fully supported upon which Lady Jane with an air of triumph Arrose from he chair took from beneath the cussion a large Bible & The D^{r} received it at her hand Saying you will find it in the 51st chapter of genesis And Abraham was standing at the Door of his Tent looking by the way of the Wilderness and behold a Man came leaning on his Staff, and Abr. said unto the Man Stranger turn in, and tarry with me this Night,

[1] "The Art of procuring pleasant Dreams," and see Miss Shipley's letter to Franklin, November 13, 1784.

and the Man answered and said unto Abr. Nay! but I will tarry under this Oak. And Abr. press'd him & he turned in. And Abr. sat Meet before him, but the man called not on the Lord to Bless it; wherefore Abraham was wroth; & turned him out by the Way whence he came, Now at Midnight the Lord called unto Abr. & Abraham said here am I Lord — and the Lord said unto him where is the Stranger? Ab. answered and said unto the Lord: he would not call on thy Name to bless his Meet; wherefore I turned him out with blows. And the Lord said unto Abr. Have I not born with him this 100 and 60 and 8 years, and couldest not thou, who art thyself a Sinner bear with him one Night."

The charge of plagiarism was occasionally brought against Franklin, and when it was found that a similar parable existed in Jeremy Taylor's "Liberty of Prophesying" the cry of "thief" was immediately raised and has not yet entirely died away. Nothing can be clearer, however, than that Franklin laid no claim to originality in this playful piece and that he never intended or sanctioned its publication. He had printed several copies upon loose leaves for circulation among his friends. Lord Kames published it, from one of these slight copies, in his "Sketches of the History of Man," introducing it with the words: "It was communicated to me by Dr. Franklin of Philadelphia, a man who makes a great figure in the learned world; and who would make a still greater figure for benevolence and candor, were virtue as much regarded in this declining age as knowledge." The *British Repository* (May, 1788) first brought the charge of plagiarism, and in the next number of that periodical Mr. Vaughan defended Franklin, saying: "This great man who at the same time that he was desirous of disseminating an

amiable sentiment, was an extreme lover of pleasantry, often endeavoured to put off the parable in question upon his acquaintance, as a portion of Scripture, and probably thought this one of the most successful modes of circulating its moral. This object would certainly have been defeated had he prefixed to the printed copies of the Parable, which he was fond of dispersing, an intimation of its author. He therefore gave no name whatever to it, much less his own. And often as I have heard of his amusing himself on this occasion, I never could learn that he ascribed to himself the merit of the invention. His good humour constantly led him into a train of amusing stories concerning the persons, who had mistaken it for Scripture (for he had bound it up as a leaf in his Bible, the better to impose upon them) which perhaps, made the point of authorship forgotten." Franklin wrote to Vaughan (November 2, 1789): "The truth is, as I think you observe, that I never published that Chapter, and never claimed more credit from it, than what related to the style, and the addition of the concluding threatening and promise. The publishing of it by Lord Kames without my consent, deprived me of a good deal of amusement." [1]

Another of his parables in Scriptural language related to brotherly love. Reuben bought an ax of the Ishmaelite merchants, which he prized highly, for there was none in his father's house. Simeon, Levi, and Judah came to him in turn to borrow it, but he refused them, and they sent a messenger after the Ishmaelites with money and bought for themselves each an ax. Now it came to pass that Reuben

[1] There has been a learned discussion of the origin of this parable (which Jeremy Taylor said he found in "the Jews' books"), which the curious may read in Sparks's "Franklin," Vol. II, p. 118.

hewed timber on the bank of the river, and his ax fell therein, and he could by no means find it. He came to Simeon and sought to borrow his ax, but Simeon refused. He went to Levi, who consented but reproached him so that Reuben turned away with grief and shame, whereupon Judah said, "Lo, have I not an ax that will serve both thee and me? Take it, I pray thee, and use it as thine own."

"And Reuben fell on his neck and kissed him, with tears, saying, Thy kindness is great, but thy goodness in forgiving me is greater. Thou art indeed my brother, and whilst I live, will I surely love thee.

"And Judah said, Let us also love our other brethren; behold, are we not all of one blood?"

Two other Scriptural writings will be found in this edition: Franklin's version of the Lord's Prayer, with his reasons for the changes made in the language, and his "Preface to an Abridgment of the Book of Common Prayer."

Franklin's pen was not entirely occupied throughout the Revolutionary epoch with addresses and memorials importuning the French Government for loans and alliance, and informing the Continental Congress of the progress of affairs in Europe. He found time to compose for the amusement of his friends, in whose cheerful society he sought occasional diversion, certain little essays upon subjects far removed from the tumult and ill-temper of politics. Every Sunday his house at Passy was thrown open to his friends, and his dinner parties were large and merry; every Wednesday he drove to Moulin Joli to call upon Mme. Brillon, and Saturdays were devoted to the drawing-room of Mme. Helvétius *at* Auteuil.

In the society of quick-witted, polished French ladies, the Abbés Morellet and La Roche, the philosophers Condorcet and Cabanis, Franklin relaxed from the severe attention and untold annoyances of public affairs. He sang songs, played *Les Petits Oiseaux* on the armonica, jested with the abbés, and read aloud the little essays which he had written in robust English or invalid French. Written in a spirit of happy abandonment, when for a moment the busy world stood still and his shoulders were lightened of their load of care, they sparkle with mirth and shine with grace.

They were intended for no larger public than the little circle of dear friends; they were born of affection and sympathy. Sometimes they were printed upon his private press at Passy in limited editions of perhaps a dozen or fifteen copies. Nearly all are lost. The fictitious "Supplement" exists in the Library of Congress and the Library of The American Philosophical Society, and the latter collection has also the printed original of "La Belle et la Mauvaise Jambe" (Passy, 1779). But the other fugitive leaves have disappeared. Soon after Franklin returned to America the terrible storm of the Revolution burst upon France. In that awful delirium many of Franklin's dearest friends suffered tragical deaths. Condorcet died of poison on a prison floor; Le Veillard perished by the guillotine. Houses were plundered, private papers confiscated and destroyed. Apparently a few letters were all that remained when the Revolution had spent its force.

These light essays Franklin called his "bagatelles." They were printed upon a press in his own house at Passy and with type cast by his servants. He certified to Francis Child, printer, that the printing types contained in fifteen

boxes brought by him from France "were made in my house at Passy, by my servants, for my use, and were never the property of any European letter founder, manufacturer, or merchant whatsoever."

The first publication of the "Bagatelles" was by William Temple Franklin in the fifth volume of his edition of his grandfather's works (1818). They are found in the first volume of the "Posthumous Writings" (Sec. III, pp. 216–298), and are introduced with the following headnote: —

"The Letters, Essays, etc., contained in this section were chiefly written by Dr. Franklin for the amusement of his intimate society in London and Paris, and were by himself actually collected in a small portfolio, endorsed as above. Several of the pieces were either originally written in French, or afterward translated by him into that language by way of exercises." Then follow: —

1. "The Levee."
2. "Proposed New Version of the Bible."
3. "Apologue" (written, says a footnote, at the period of, and in allusion to, the claims of the American Royalists on the British Government).
4. To Miss Georgiana Shipley, dated London, September 26, 1772, with an epitaph on her American squirrel.
5. "The Art of Procuring Pleasant Dreams."
6. "The Ephemera, an Emblem of Human Life" (written in 1778, to Mme. Brillon, of Passy).
7. "The Whistle" (to Mme. Brillon, Passy, November 10, 1779).
8. "The Petition of the Left Hand."
9. "The Handsome and Deformed Leg."
10. "Morals of Chess."

11. "Conte (with a translation), a Tale."

12. "Dialogue between Franklin and the Gout" (dated midnight, October 22, 1780).

13. To Mme. Helvétius, at Auteuil.

14. A Madame Helvétius (in French, with a translation into English).

15. "Très humble Requete Présentée à Madame Helvétius par ses Chats" (with translation).

16. A Monsieur L'Abbé de la Roche, à Auteuil (with translation).

17. A Monsieur L'Abbé Morellet, Passy (with translation).

With the exception of number fifteen,— "Très humble Requete Présentée à Madame Helvétius par ses Chats," — which was really written by Abbé Morellet, all these bagatelles will be found in the present edition. Some of them have been printed from drafts in Franklin's handwriting in the Library of The American Philosophical Society. Sometimes, in order to improve his French, he translated one of these little essays into the best French he could muster and sent his Gallic version for criticism to M. Brillon, "un savant," or to Mme. Brillon, who calls herself "une femme qui n'est point savante." Franklin never acquired fluency in French. He was never quite sure that he thoroughly understood what was said in conversation, and he found the writing of a letter in French a laborious undertaking. In 1786 he apologized for writing to M. de Chaumont in English, saying, "It costs me too much time to write in that language [French] and after all is very bad French." "The Story of the Whistle" is found among his papers in two drafts, on the right in English, on the left in French, and the latter

corrected in red ink in another hand than that of the first draft of the translation. He sent to the Brillons his French translation of his "Dialogue entre la Goute et M. Franklin." It was returned to him "corrigé et augmenté de plusieurs fauttes par un sçavant et voué de nottes critiques par une femme qui n'est point sçavante." At the same time Madame Brillon wrote to him: "Your dialogue has greatly amused me but your corrector of French has spoiled your work. Believe me, leave your works as they are, use words which express your meaning and laugh at the grammarians who through their purisms enfeeble your phrases. If I had the brains I should utter a dire diatribe against those who would dare to refurbish your work, even if it were the Abbé de la Roche, or my neighbour Veillard." After reading "The Whistle" she wrote to him: "M. Brillon a bien ri des *sifflets:* nous trouvons que ce que vous appelés votre mauvais françois, donne souvent du picquant a votre narration, par la construction de certaines phrases, et par les mots que vous inventés."

At the request of one of Bishop Shipley's daughters Franklin wrote his bagatelle on "The Art of Procuring Pleasant Dreams," in which occurs the following passage: "It is recorded of Methusalem, who, being the longest liver, may be supposed to have best preserved his health, that he slept always in the open air; for, when he had lived five hundred years, an angel said to him: 'Arise Methusalem, and build thee an house, for thou shalt live yet five hundred years longer.' But Methusalem answered, and said, 'if I am to live but five hundred years longer, it is not worth while to build me an house; I will sleep in the air, as I have been used to do.'" Upon acknowledging the receipt of the little

essay Caroline Shipley wrote (November 13, 1786): "I have particularly to thank you for 'The Art of Procuring Pleasant Dreams,' indeed it flattered me exceedingly that you should employ so much of your precious time in complying with my request, but where do you read that Methusalah slept in the open air? I have searched the Bible in vain to find it."

In the succeeding volumes of this work the various bagatelles will be found printed from Franklin's manuscript, or from the Passy press, or from W. T. Franklin's text. In this place it may be of interest to print two of them from the first drafts. "The Deform'd and Handsome Leg" thus printed shows how Franklin worked over his essays, even when they were but bagatelles. The other, "The Whistle," becomes a lesson in French as well as an example of literary construction and correction.

"*The Deform'd and Handsome Leg.*[1]

"There are two Sorts of People in the World, who with equal Degrees of Health, & Wealth, and the other Comforts of Life [are] *become*, the one happy, and the other [Unhappy] *miserable.* — This arises very much [merely] from [In almost ever] the different *views* in which they consider Things, Persons & Events; and the Effect of those different Views upon their *own* Minds.

"In whatever Situation [a] Men can be plac'd, they [will] *may* find Conveniencies & Inconveniencies: In whatever Company; they [will] *may* find Persons & Conversations more or less pleasing. At whatever Table, they [will find]

[1] Erasures in the manuscripts are shown by being placed between [ ]. Insertions are printed in *italics.*

may meet with Meats &ᵒ *drinks* of better and worse Taste, [things] *Dishes* better & worse dress'd: In whatever Climate they will find good and bad Weather; Under whatever Government, they [will] *may* find good and bad Laws, and good and bad Administration of those Laws. *In every Poem or Work of Genius they may see Faults &ᵒ Beauties:* In almost every Face and every Person they may discover [Beauties] *fine Features* & Defects, good & bad Qualities. Under these Circumstances, the two Sorts of People [I have] *above* mention'd fix their Attention, those who are to be happy, on the [convenient] *Conveniencies of Things*, the pleasant Parts of Conversation, the well-dress'd Dishes, the Goodness of the Wines, the [agreable] *fine* Weather; [the] &c. &c. *and enjoy all with Chearfulness.* Those who are to be unhappy, think &ᵒ *speak* only of the contraries. Hence they are continually discontented themselves, and by their Remarks sour the Pleasures of Society, *offend* [*disgust*] *personally many people*, and make themselves [where] every where disagreable.

"If this [different] Turn of Mind was founded in Nature, such unhappy [*People*] *Persons* would be the more to be pitied: But as th[at]*e* Disposition to criticise & be disgusted, is perhaps taken up originally by Imitation, and is unawares grown into a Habit; [and] which tho' at present *strong* may *nevertheless* be cured when those who have it are convinc'd of its bad Effects on their [Happiness] *Felicity;* I hope [a] *this* little Admonition may be of Service to them, — and put them on changing a Habit, which tho' in the Exercise is [merely] *chiefly* an Act of Imagination yet it has serious Consequences in Life: [To] *as it* brings on real *Griefs* &ᵒ Misfortunes: For *as many* [*have been*] *are offended by, &ᵒc.* no body *well* loves

this Sort of People, no one shows them more than the most common." — *The Franklin Papers, Vol. 50, A. P. S.*

"PASSY, Nov. 16, 1779.

"J[e recus] *'ai Recu* les deux Lettres de ma chere Amie, l'une [pour] *pour le* Mercredi, l'autre [pour] *pour le* Sam[m]edi; c'est aujourd'hui encore Mercredi. [Mais] Je ne merite pas [d'avoir une pour ce jour], [*d'en*] *d'en avoir encore*, parceque je n'ai pas fait reponse aux [autres] precedentes. Mais *tout* indolent, [comme] *que* je suis, [& averse] *et quelque aversion que j'aye* [a] d'ecrire, la Crainte de n'avoir [pas] plus de vos charmantes Epitres, si je ne contribue [pas] *aussi* ma part pour soutenir la Correspondance [m'oblige] *me force* de prendre [ma] *la* plume. Et comme M. Brillon [a] *m'a mandé* si obligeamment qu'il part demain Matin pour vous voir moi, au lieu de passer [le] *ce* Mercredi[s] au soir, comme j'ai fait si long tems *de* ses predecesseurs du même nom, en vôtre [delicieuse Compagnie] douce Société, Je me [mis a] [*retira dans ma*] *suis mis à mon ecritoire pour* le passer [en] *à* pens-[ant]*er* [de] à vous, [en erivant à vous], *et à vous ecrire* & [en lisant] *à lire* & reli[sant]re ce que vous m'avez [ecrit a moi] [*si elegamment*] si delicieusement écrit.

"Je suis charmé de votre Description du Paradis, & de [votre] *vos* Plans pour y vivre. J'approve aussi *trés* fortement la Conclusion que vous faites, qu'en attendant il faut tirer de ce bas monde tout le bien qu'on en peut tirer. A mon Avis, [nous c'est bien] *il est trés* possible pour nous d'en tirer beaucoup plus de bien que nous n'en [tirons] *tirons* & d'en souffrir moins de mal, si nous [voulussions] *voulions* seulement prendre garde de *ne donner pas trop pour nos s*[*ou*]*ifflets*. Car il me semble, que la plus-part des Malheureux qu'on trouve

dans le monde sont devenus tels par *leur* Negli[ss]*gence* de cette Caution.

"Vous demandez ce que je veux dire? Vous aimez les [Contes] *Histoires* & vous m'excuse[rai]*rez* si je vous en donne une *qui me* [*re qui*] *regarde* [de] moi même. Quand J'etois un Enfant de 5 *ou* 6 ans, mes Amis, [sur] un Jour de Fête, remplirent ma petite Poche de [oooo] *sous*. [J'Iroit] J'allai[t] tout de suite à une Boutique ou on vendoit des Babioles, [&] *mais* étant charmé du [la] Son d'un Sifflet *que je rencontrois en chemin dans le mains d'un autre petit garcon* je *lui* volontiers offr[oit] *ais* & donnai volontiers pour cela tout mon Argent. [Quand je ret] Revenu chez moi, sifflant par toute la Maison fort [satisfait] *content* de mon Achat *mais fatiguant les Oreilles de toute la Famille*, mes Frères, mes Sœurs, mes Cousines, entendant [combien j'ai donne] que j'avois *tant* [*tant*] donné *tous* pour ce mauvais Bruit, [tous ils] me dirent que c'étoit dix fois plus que la Valeur; [& ils] *alors ils* me [faisoit] *firent* penser [du] *au* Nombre de[s] bonnes choses, que je pouvois acheter avec le reste [du] *de ma* Monnoye *si j'avois éte plus* [*sage*] *prudent* & *ils* me ridiculi[ssent]*erent* tant de ma Folie, que je pleuroi[t]*s* de *cette* vexation; & la Reflexion me donnoit plus de Chagrin, que le sifflet [peut me donner] d[u]*e* plaisir.

"PASSY, Nov. 16, 1779.

"I received my dear Friend's two Letters, one for Wednesday & one for Saturday. This is again Wednesday. I do not deserve one for to day, because I have not answered the former. [But you will] But indolent as I am, and averse to Writing, the Fear of [receiving] having no more of your [*ever*] pleasing Epistles, if I do not contribute to the Correspondence, obliges me to take up my pen. And as M. Brillon

has kindly sent me Word, that he sets out to morrow to see you, instead of spending this Wednesday evening as I [us'd to do Since these] have long done its Namesake's, in your delightful Company, I set down to spend it in thinking of you [and] in writing to you, *and in reading over and over again your Letters.*

"I am charm'd with your Description of Paradise, & with your Plan of living there. And I approve much of your Conclusion, that in the mean time we should draw all the Good we can from this World below. — In my Opinion we might all [do] *draw* more *good* from it than we do and suffer less Evil, if we [were but careful enough] *would but take care* not to *give too much for our whistles.* For to me it seems that most of the unhappy people we meet with, are become so by the Neglect of that [Circumstance] Caution.

"You ask, what I mean? — You [ask what I] love Stories, and will excuse my telling you [a little] one of myself. When I was a Child of 7 Years old, my Friends [on a] *on a* holiday [fill'd my] fill'd my little Pocket with halfpence. I went directly to a Shop where they sold Toys for Children; and being charm'd with the Sound of a Whistle, *that I met by the way in the hands of another Boy,* I voluntarily offer'd and gave all my Money for it. When I came home, *whistling all over the House, much pleas'd with my Whistle, but disturbing all the Family,* my Brothers, Sisters & Cousins understanding the Bargain I had made, told me I had given four times as much for it as it was worth; put me in mind what Good things I might have bought with the rest of the Money, and laught at me so much for my folly that I cry'd with Vexation; and the [Ch Chagrin I suffer'd by it was greater] Re-

flection [on] gave me more Chagrin than the Whistle gave me Pleasure.

"[Co] *Cet accident fut* cependant, [etoit] dans la suite [ut] de quelque utilité pour moi, l'Impression restant sur mon Ame; [tant que quand] *de sorte que lorsque* j'étois tenté d'acheter quelque chose qui ne m'etoit pas necessaire, je disois [a] *en* moi même: *Ne donnois pas trop pour le Sifflet;* Et j'[ai sauve] *épargnois* mon Argent.

" Devenant grand Garcon, [&] entrant [dans] le Monde, & observant les Actions des Hommes, je [pensois] *vis* que je rencontrois [*un*] Nombre [*des gens*] *de gens qui donnoient trop pour le Sifflet.*

" Quand j'ai vû *quelqu'*un, qui, ambitieux [du] *de la* Faveur de la Cour, [sacrifiant] *consumant* son tems en [Attendance des] Assiduités aux [Levees] *Levers*, son Repos, sa Liberté, sa Vertu & peut-être ses vrais Amis, pour obtenir *quelque petite Distinction;* J'ai dit [a] *en* moi méme, *Cet homme donne trop pour son Sifflet.* Quand [j'ai] *j'en ai* vu un[*e*] autre [entété] [*personne*] *avide* [*d'obtenir*] [de Popularite] [se rendre populaire] *de se rendre populaire* & pour cela s'occupant toujours de Contestations publiques, negligeant ses [propres] Affaires *particulieres* & les ruinant par cette Negligence, [Il] [*elle*] *il* paye, *trop* ai-je dit, [*trop*] *pour son Sifflet.* — Si j'ai connu un [Miser] Avare, qui renoncoit à toute [espece] *maniere* de vivre commodement, à toute le plaisir de faire le bien aux autres, à toute l'Estime de ses Compatriotes; & a tous les [joyes] *charmes* de l'Amitié, pour avoir un morceau de metal jaune. Pauvre homme, [je] disois-je, vous donnez trop pour vôtre Sifflet! — Quand j'ai rencontre [a] un homme de Plaisir, sacrifiant toute *louable* perfectionnement [lauda-

ble] de son Ame [ou du] *&ᵉ toute* amelioration de son Etat aux [gratifications] *voluptés* de sens[e] purement corporel[les] [& en les pursuivant] &-detruisant sa Santé dans leur poursuite. *Homme trompé*, ai-je dit, *vous vous procurez des Peines au lieu des Plaisirs; vous payez trop pour votre Sifflet!* — Si [je vois] *j'en ai vu* un autre, entété de beaux Habillements, belles Maisons, belle Fournitures, beaux Equipages, toutes au-dessus de sa Fortune & [pour lesquelles il fait des] [*voir*] *qu'il ne se procurait qu'en faisant des* Dettes & [finit] *en allant finir* sa Carriere dans une Prison. Helas, [*dira*] [dis-je], *ai-je dit, Il a payé trop pour son Sifflet!* — Quand j'ai vu une trés belle fille, d'un[e] [disposition] naturel[l] bon[ne] & [douce epouse] *doux mariée* à un homme feroce & brutal, qui la maltraite continuellement [*Quelle pitie*] *C'est grande Pitié*, ai-je dit, *qu'elle* [*a*] *ait tant payé* [*tant*] *pour un Sifflet!* — Enfin, j'ai conclu que la plus grande partie des Malheurs de[s] [Hommes] l'Espece humaine [ont sa derive] [*vio*] *viennent* des Estimations fausses qu'on fait de *la* Valeur des choses [moyen de qu'on] [*oooooo*] on donne[s] [*oooooo*] trop pour les Sifflets.

"Neantmoins *je sens que* je dois avoir de la Charité pour ces Gens malheureux quand je considére qu'avec toute cette Sagesse dont je me vante, il y a certaines choses dans [le] *ce bas* monde si tentantes; par exemple, les Pommes du Roy Jean, lesquelles heureusement ne sont pas à acheter car [si si ils sont pour] *si elles étoient* mises a l'enchere, je [peux] *pourrois* étre trés facilement [mené a] *porté à* me ruiner par *leur* [l]'Achat, & trouver que [j'avois] *j'aurais encore* une fois *donné trop pour le Sifflet.*

"Adieu ma trés chere Amie, [& me] croiez *moi* toujours le votre, bien sincerement, & avec une Affection [indiminuable] inaltérable.

"[J'ai perdu vos voisines & les miennes & quand je pense [de] *a* vous, je chante pitoyablement.

" J'ai perdu mon Euridice: rien]"—*The Franklin Papers, Vol.* 45, *No.* 149½, *A. P. S.*

"This however was afterwards of Use to me, [and] the Impression continuing on my Mind; so that often when I was tempted to buy some unnecessary thing, I said to myself, *Don't give too much for the Whistle,* and I sav'd my Money.

"As I grew up, [and] came into the World, and observed the Actions of Men, I thought I [saw] *met with* many *who gave too much for the Whistle.* When I saw [a man] one ambitious of Court Favour, sacrificing his Time, in attendance at Levees, his Repose, his Liberty, his Virtue, and perhaps his Friend, to obtain it. [My] I have said to myself, *This Man gives too much for his Whistle.* When I saw another fond of Popularity, constantly imploying himself in political Bustles, neglecting his own Affairs, and ruining [himself] *them* by that Neglect, [Here] *He pays,* says I, *too much for his Whistle.* If I knew a Miser, who gave up every kind of comfortable Living, [in order] all the Pleasure of doing good to others, all the Esteem of his Fellow Citizens, & the [J] Joys of *benevolent* Friendship, for the sake of accumulating Wealth; *Poor Man,* says I, *you pay too much for your Whistle.* [If I saw a Prodigal] When I met with a Man of Pleasure, [giving up] *sacrificing* every laudable Improvement of his Mind or *of* his Fortune, to mere corporal Satisfactions, & ruining his Health in their Pursuit. *Mistaken Man,* says I, *you are providing Pain for yourself instead of Pleasure; you pay too much for your Whistle.* If I [see] [*saw*] *see* one fond of Appearance of fine Cloaths, *fine Houses,* fine Furni-

ture, fine Equipages, all above his Fortune, [till] for which he contracts Debts, and ends his Career [in] *in* a Prison. *Alas*, Says I, *he has paid too much for his Whistle.* — When I saw a beautiful [Girl] sweet temper'd *Girl* marr[ying]d to an *ugly* ill-natur'd Brute of a Husband: [M] *What a Pity*, says I, *that she should pay so much for a Whistle!* — In short, I conceiv'd that great Part of the Miseries of Mankind, were brought upon them by the false Estimates they *had* made of the Value of things, and by their *giving too much for the Whistle.*

"Yet I ought to have Charity for these unhappy People when I consider, that with all this Wisdom of which I am boasting, there are certain things in the World [ooo] *so tempting*, for Example, the Apples of King John, which *happily are not to be bought, for* if they were to be put to sale by Auction, I might very easily be [brought] [*induced*] *led* to ruin myself in the Purchase, and find that I had once more *given too much for the Whistle.*

"Adieu, my dearest Friend, and believe me ever yours, very sincerely and with unalterable Affections.

"[I have lost your Neighbours also. And when I think of you, I sing, I *have* lost my *Euridice*, Oh"] — *The Franklin Papers, A. P. S., Vol.* 45, No. 149½.

CORRESPONDENCE

I have already referred to the immense range and volume of Franklin's correspondence. From every country in Europe men of science addressed him in the attitude of pupils, and statesmen sought his opinions upon the political manœuvres

of the time. Never was there a man more eulogized. In the House of Lords he was mentioned by Chatham as one "whom all Europe held in high estimation for his knowledge and wisdom, and ranked with our Boyles and Newtons; who was an honour, not to the English nation only, but to human nature." And in the midst of the Revolution Lord Chatham and Lord Camden requested Thomas Walpole to express in his letters their high admiration and affectionate regard for Franklin. Crowned heads sought through their ministers for interviews with him. Burke called him "the friend of the human race." Condorcet addressed him as "the modern Prometheus" and "my dear and illustrious colleague." Erasmus Darwin declared him to be the greatest statesman of the present or perhaps of any century, and compared him to the Saviour of the world (Derby, May 29, 1787). The comparison might appear blasphemous proceeding from the sceptical philosopher, but it occurred to others who used it with all reverence. His sister, Mrs. Mecom, wrote to him (November 3, 1774): "I think it is not Profanity to compare you to our Blessed Saviour who employed much of his time while here on earth in doing good to the body as well as Souls of Men, and I am shure I think the Comparison just often when I hear the Calumny invented and thrown out against you while you are Improving all your Powers for the Salvation of their very Persons." In like vein his niece (E. Hubbart) begged him to be temperate in well-doing or he would occupy Heaven alone: "Consider, Sir, if you go on at this rate you will have no company there" (December 1, 1755).

The enthusiasm of the French was boundless. Joseph Etienne Bertier wrote (February 27, 1769): "France is as

much your country as England, a Father is in his country when it is inhabited by his children. We are all ***Franklinistes.***" M. de la Blancherie, one of the four commissioners of the French Academy, begged him to honour the Academy with his presence and awaited him "as Israelites awaited manna from heaven" (April 12, 1777). Baron Zreny wrote from Hungary (January 9, 1781): "Jamais Themistocles etoit si troublé de nuit et de jour par des tropheés de Miltiades, comme moi par vos entreprises." After the surrender of Cornwallis, D'herime exclaimed, "Vous etes la pierre fondamentale de l'heureuse revolution contre laquelle, la tyrannie devoit un jour se briser."

Turgot's famous epigram, the most successful in modern history, — Eripuit caelo fulmen, sceptrumque tyrannis, — commanded the admiration of the world, and set the men of letters of France vainly endeavouring to render it into similarly sententious French verse. Landor said to Sir Samuel Romilly: "It is far more glorious to have written this one verse than all the verbiage of Virgil at the beginning of the Georgics. Wretched stuff which children and men too, traditionally admire!" Franklin seems to have been the only one who questioned the propriety of the sentiment, for when Felix Nogaret sent him his French translation of the line, "Il ôte au ciel la foudre, et le sceptre aux tyrans," he replied: "J'ai reçu la lettre dans laquelle, aprés m'avoir accablé d'un torrent de Compliments qui me causent un Sentiment pénible, car je ne puis espérer les mériter jamais, vous me demandez mon Opinion sur la traduction d'un vers latin. Je suis trop peu connaisseur, quant aux élégances et aux finesses de votre excellent langage, pour oser me porter juge de la poésie qui *doit* se trouver dans ce vers.

"Je vous ferai seulement remarquer deux inexactitudes dans le vers original. Malgré mes expériences sur l'électricité, la foudre tombe toujours à notre nez et à notre barbe, et quant aux tyrans, nous avons eté plus d'un million d'hommes occupé a lui arracher son sceptre."[1]

D'Alembert tried his hand at the translation and sent to Franklin these verses: —

"Tu vois le sage courageux
Dont l'heureux et mâle génie
Arracha le tonnerre aux dieux
Et le sceptre à la tyrannie."

Franklin's wide acquaintance included men of three centuries. In his boyhood he heard Increase Mather preach, and remembered his reference to "that wicked old persecutor of God's people — Lewis XIV." Ere his youth attained a beard, he had attracted the attention of Bernard Mandeville, and added a purse made of American asbestos to Sir Hans Sloane's collection of curiosities. In his old age he extended aid and encouragement to the young and ambitious. Almost the last of his benefactions was furnishing the father of Oliver Wendell Holmes, in his far Southern home, with a library of useful books. Between the birth of Increase Mather and the death of Abiel Holmes, both of whom thus come within the orbit of Franklin's life, lies a stretch of two hundred years.

Franklin's correspondence is in nine languages, and relates to every subject that found a place in eighteenth-century

[1] "Il est vrai que Turgot avait trouvé son premier hémistiche dans l'Astronomicon de Manilius (liv. I, v, 102); et bien plus, comme l'a fort bien remarqué Grimm (Correspon. Avril 1778), tout le dessin de son vers dans celui-ci, de l'Anti-Lucréce du Cardinal de Polignac (liv. 1er, v, 96): Eripuitque Jovi fulmen, Phœboque Sagittas." — Edouard Fournier, "L'Esprit des Autres." Paris, 1879, cinquieme edition, p. 40.

politics and philosophy. We have already sufficiently noted his letters to and from Herschel and Maskelyne, Priestley and Lavoisier, Ingenhousz and Beccaria, and all the pioneers of scientific research in Europe and America. Nothing was foreign to his interest, nothing escaped his attention. He corresponded with Court de Gebelin about the aboriginal American languages and customs, with George Croghan about the discovery of the remains of mastodons in the New World, with David Barclay about the steam engine, with John Fitch about the steamboat, with Saussure about the determination of the density of the earth and the ascent of Mount Blanc. All this is but a small part of his prodigious correspondence. Among his infinite hoard of papers are his communications with The Society of the Friends of Dr. Bray, and with Anthony Benezet and Granville Sharp upon slavery, with Mrs. Montagu — "Blue-stocking Montagu" — concerning her poor neighbours in Berkshire. Here are great budgets of letters from the aristocracy of Europe; Princess Golofkin and Princess Dashkof, and Prince Czartoryski are honoured by letters from him, while he feels himself much more interested and honoured in a thoughtful letter from a galley slave, Pierre André Gorgaz, "forçat numéro 1336," of Toulon, who sends him a scheme for perpetual peace between England and America, and Franklin endorses it "project of universal peace, by a galley slave!" Here are anonymous letters written by the left hand to avoid detection, and numerous reports upon English politics from Benjamin Vaughan, the close companion of Lord Shelburne, David Hartley, M.P., and Edward Bridgsen. Sir Edward Newenham, with an Irishman's violent prejudice, put venom into his censure of English politics and politicians.

Vaughan's letters are particularly valuable. He freely criticises the English leaders and reports what he has heard of the resolves of cabinets and ministers. He tells Franklin that Shelburne has no such thing as friendship in his nature. He says that "the Rockinghams are warm and weak men who all hang together, and of course they make very proper materials for knaves to work upon, and knaves have not been wanting that were both noisy and needy." He reports Lord North as saying that he believed Franklin the only man in Paris whose hands were not stained with stock jobbery.

It is possible to separate Franklin's papers into three great divisions. Some are official, some are scientific, and some are social.

The official correspondence includes the communications from European soldiers who wanted to go to America under his patronage, to enlist in the army; from emigrants of all nationalities who would go to America to settle, to trade, to teach, or to introduce inventions; from office seekers, — struggling institutions seeking financial help in France, sturdy beggars, ill-used prisoners, and quarrelsome and jealous sea captains. It was a veritable deluge of letters that poured ceaselessly in upon him, some soliciting money, some begging him to settle angry disputes and reapportion prize money, others relating to the purchase of supplies for "the insurgents" and to the exchange of prisoners. In all this multifarious business, he exhibited his slow, cool, sagacious judgment, subduing anger in one case, foiling craft in another, until in sheer rage at his constant discomfiture, Lord Stormont wrote to Lord Weymouth (October 3, 1776) of Franklin's "insidious subtlety."

Much of the official correspondence addressed to him never

reached him. Packages from the Congress and its committees were cast into the sea by captains hard pressed by English men-of-war. Large packets of letters were intercepted in London and opened by Anthony Todd, Secretary to the Post Office, who had discovered, as he told the Earl of Suffolk, that "Mr. François" meant "alias Dr. Franklin." [1]

Upon the backs of letters Franklin frequently endorsed brief, vigorous, and sometimes humorous comments upon their contents. These comments are occasionally expanded into a rough draft of the reply to be sent to the writer. A certain Backhaus writes (February 7, 1783) that he wishes to enter the military service of America. Franklin notes upon the letter "That it is probable that the United States will not keep up a standing army, having everywhere a well-disciplined militia. That many of the Germans have already deserted the English colours and settled in the country and it is probable most of them will do the same rather than return to Europe. That I am not authorised to set on foot any such negotiations, am however obliged to him for his good will to our service and request he would accept my thanks."

A throng of adventurers pressed upon Franklin, beseeching him by letter, and in personal interviews, to recommend them to America, that they might have a part in the conflict. They made every kind of pathetic, impudent, and whimsical appeal. One aspirant who signed himself "Louis Givanetti

[1] George Lupton wrote to William Eden (May 28, 1777): "I yesterday discovered under what name Mr. Deane receives his letters from England, tho' 'twas attended with some risque; he had occasion to go below for something, in the meanwhile I slipped into his closet and discovered numbers of letters directed to him under the name of Monsieur Benson; they come to him generally by the way of Holland." — Stevens' *Facsimiles*, II, No. 162.

Pellion, ci-devant Garde du Corps de S. M. le Roi de Sardaigne, aujourd'hui Controlleur de la Cour de S. M^e^ susdite," recommended himself in the following terms: "I know how to accommodate myself to all climates, manners, circumstances, and times. I am passionately fond of travel, I love to see the great world, its armies and navies. Neither cards, nor wine nor women have any influence over me: but a ship, an army, long voyages, all these are Paradise to me!"

Franklin yielded to the solicitations of a few, and, of those whom he recommended, some—Steuben, Zollicoffer, Fleury — achieved high distinction. Congress was soon, however, embarrassed by the number of foreign soldiers crowding into the army and requested the commissioners in France to discourage all such applicants.

Occasionally, however, the application came reinforced with letters from persons whom it was impolitic to refuse or to offend. In these instances an amusing caution curbs Franklin's recommendations, while he artfully disobeys orders. The following letter was written to the President of Congress, July 10, 1780: —

"Sir: I am requested by Madame la Marquise de la Fayette, whom no body can refuse, to give the Bearer, M. le Baron d'Arros, a Letter to your Excellency. I have acquainted him that our Armies are fully officered, that there was no Probability of his being employed, that it was contrary to my orders to recommend any foreign Officer for Employment, that such a Recommendation, if I were to give it, would therefore do him no service, and that I could not give him the least Expectation or Encouragement to go over to America, but would rather advise him to remain in France. All this has had no Effect to change his Resolution. He thinks

his long Experience and Skill in his Military Profession, will recommend him: and I have only to request of your Excellency that you would shew him that Countenance and those Civilities that his Zeal for our Cause and his Connections with a Family we all so much esteem and love may entitle him to."

Upon being asked by an entire stranger for a letter of recommendation, Franklin couched it in these terms: "As to this gentleman I must refer you to himself for his character and merits, with which he is certainly better acquainted than I can possibly be. I recommend him, however, to those civilities, which every stranger, of whom one knows no harm, has a right to; and I request you will do him all the good Offices, and show him all the favour, that, on further Acquaintance, you shall find him to deserve."

"You can have no conception," he wrote to a friend, "how I am harass'd. All my friends are sought out to teaze me. Great Officers of all Ranks, in all Departments; Ladies, great and small, besides professed Sollicitors, worry me from morning to night. The noise of every Coach now that enters my Court terrifies me. I am afraid to accept an invitation to dine abroad, being almost sure of meeting with some Officer or Officer's Friend, who as soon as I am put in good Humour by a Glass or two of Champagne, begins his Attack upon me. Luckily I do not often in my sleep dream myself in these vexatious Situations, or I should be afraid of what are now my only Hours of Comfort. If therefore you have the least remaining Kindness for me, if you would not help drive me out of France, for God's sake, my dear friend, let this your 23d Application be your last."

Volumes of letters came from the relatives of those who

had enlisted, anxiously inquiring about their fate. The Countess Esthe (sister-in-law of Kosziuszko), the brother of Casimir Poulawski, the aged father of Steuben, write repeatedly and pathetically for news from America. Others are languishing in English prisons, and their kinsmen beseech Franklin to secure their exchange. In reply to one such memorial he writes (to M. Goudeman, December 10, 1777): "We consider M. Waibert as one of our Countrymen. Hundreds of them are in the same situation. We have proposed to the British Court, through their Ambassador here, an Exchange of Prisoners in Europe. The Proposition was rejected with Insolence. We have no interest with that Court to procure Favours. That Gentlemen may depend on our taking the same care and Pains to procure his Liberty as for any other the most favoured of our People."

The weary pressure of life in Europe drove many persons, of all classes of society, to emigrate to the New World. Franklin was called upon constantly for information concerning the country, the climate, its products, its trade, its people, and its laws. Reuben Harvey wrote from Cork (May 17, 1782) that about one hundred poor tradesmen and husbandmen desired to settle in America. The ship *Ann* is about to sail. "They have not money to pay their passage and therefore propose to indent as servants for a certain term, as has been the custom heretofore; but my friend Stubbeman (who is loading the ship) is unwilling to accept them in this manner until he has thy opinion respecting the propriety of it, least Congress may disapprove of such men being carried out to America." Franklin replies on the *back of the* sheet: "They will go to a Country where *People do* not Export their Beef and Linnen to import

Claret, while the Poor at home live on Potatoes and wear Rags. Indeed America has not Beef and Linnen sufficient for Exportation because every man there, even the poorest, eats Beef and wears a Shirt."

Pierre von de Corcellen, of Moudon, in the canton of Berne (March 5, 1779), wrote for information about the price of land in Pennsylvania, as he and several farmers desired to settle there. Franklin jots down upon the letter: "That I am obliged to him for his Good will to America — that the lands in Pensilvania not yet granted all belong to the Proprietary, Mr. Penn. That he sells them for 5 £ sterling the 100 Acres. A Price so low that probably the Gentlemen would chuse rather to purchase than accept them as a Gift. That no Lands are given to Encourage Strangers to settle in that Province. A good Climate, good Air, good Soil, good Government, good Laws, and Liberty have been found sufficient Encouragements without hiring Inhabitants by other Gifts: and all those he will meet with, besides are honest virtuous People, who receive Strangers with a sincere welcome and will respect his Talents." Some years later Franklin was wont to reply to inquirers of this kind by a reference to Crevecœur's excellent "Letters from an American Farmer." To a proposed emigrant he wrote: "There is a book lately published in London, written by Mr. Hector St. John, its title 'Letters from an American Farmer,' which contains a good deal of information on those subjects [value of land, etc.] and as I know the Author to be an observing, intelligent man I suppose the information to be good as far as it goes, and I recommend the Book to your perusal."

He was guarded in his commendation of Abbé Raynal's *book when a German* (Stockar) wrote to him about it from

"Schafhouse [sic] en Suisse," December 6, 1781. Franklin's memorandum is: "Different men who have been present and witnesses of a Transaction often give different and inconsistent Accounts of it, thro' defaults in their Observation or Memory. It is still more difficult for a Historian who writes of Affairs distant either in Time or Place to come at the exact Truth. It is therefore a Wonder if some Errors have escaped the Abbé Raynal's care in his History of the American Revolution which this Pamphlet points out. It is nevertheless upon the whole an excellent Work. Tho' there are some other Errors, such as that European Animals degenerate in America. That men are shorter liv'd. That they have a bad habit of Inticing Inhabitants. That the people of Massachusetts Bay preserve their Fanaticism. That the Society is bad and has grown worse. With others of less importance."

Franklin's patronage was often solicited. He was asked by authors to honour them by accepting the dedication of their works. The Abbé de Pellizer (October 21, 1778) asked his interest and favour in introducing to the world a Spanish-French-Latin Dictionary, upon which he had been long engaged. Anquetil-Duperron sent him his "La Legislation Orientale," requesting his criticism. The Marquis de Chastellux (June 21, 1780) having translated Humphreys's poems asks for Franklin's judgment upon his work. Isaiah Thomas (November 14, 1787), when about to reprint Perry's Pronouncing Dictionary (the first in the English language to be reprinted in America), requested permission to dedicate it to Franklin. Not hearing immediately in reply he dedicated it to the American Academy of Arts and Sciences, but upon receiving Franklin's belated assent, he dedicated to him the *second* edition.

Allamand, the warden of forests and waters of the island of Corsica, told Franklin that he was writing a work upon canals and asked for information about canals in America (June 22, 1779). Franklin replied: "No canals have hitherto been constructed in the Countries of the United States, unless that called the *Thoroughfare* of Duck Creek in Delaware state should be deemed one. It is said to have been made in one night by a number of People concern'd in the Navigation of the Creek which formerly had such a Turn in it, that after sailing 40 miles one came round to within a Mile of the same part of the Creek that had been passed. As the Ground of the Isthmus was flat and soft, and some high Tides nearly cover'd it, Proposals had often been made to the Owner of the Land to permit for a Sum of Money a Cut to be made there, which he had always refused."

Every description of manuscript was sent to him for criticism, or as tribute of respect and admiration. Perkins sent him his articles on waterspouts, and Cadwallader Colden his papers on meteorology. An English observer sends "A Description of a Meteor" and one Frenchman submits a *mémoire* "sur un Chariot armé en Guerre," while another offers a *mémoire* "sur un Radeau portant une Forteresse." Among his miscellaneous papers are still preserved a "Projet pour Etablir à Philadelphie une Accademie Nationnale pour l'Education de la Jeunesse Americaine," "Observations politique sur la Necessité de l'Etablissement d'une seconde Ville de Commerce maritime dans la Mediterranée," "Asyles aux Indigénes," "Weather in Marietta on the Muskingum River in 1788," "Observations on the Caladaron on Mozambique."

Naturally, Franklin's post-bag contained many begging letters. Indeed, in such numbers did they come that all

France seemed to be begging. Miserable wretches in debt, distraction, and on the verge of suicide appealed to him for aid. Poets wrote him sonnets and palinodes, which Franklin labelled "begging verses." Upon the back of a long poem he wrote, "From M. de Raudiere, a poor Poet, who craves assistance to enable him to finish an epic poem which he is writing against the English. He thinks General Howe will be off as soon as the poem appears."

A paralytic eighty-five years old wrote to him in pitiful vein, but Franklin noted upon the letter, "Je ne croit pas qu il y a un Mot de Vrai dans cette Histoire." A Benedictine monk, for five years prior of the Abbey of St. Pierre de Chalon, had lost money at cards, and begged aid from Franklin, who endorsed the letter "Dom Bernard, Benedictine, wants me to pay his Gaming Debts — and he will pray for success to our Cause!" (7bre 14, 1778). La Baronne de Randerath writes that the doctors have advised her to take her husband to Aix. Will Franklin lend her the money? Her husband and he belong to the Masonic Order, though to different lodges!

Samuel Jackson Pratt, the author of the tiresome and forgotten "Shenstone Green" and "Travels of the Heart," carried his hireling pen to Paris, and under the name of Courtney Melmoth, offered his services to Franklin. His glib tongue and fluent rhetoric won for him some slight attention, and by repeated tales of distress he obtained some small loans. When about to return to London, he applied for a further accommodation of fifteen louis. Franklin then wrote to him: "It was with greater Inconvenience to myself than you perhaps imagined that I furnished you with the 38 Guineas before, and now with 12 more, which make the

whole 50 Guineas. I have too many occasions for Money here, and too little to answer them. But I have relied and do rely on your Honour and Punctuality for the speedy Repayment. I wish you and Mrs. Melmoth a good journey. It shall be a secret with me, as you desire, but I am sorry to understand that it is necessary." Money was not the only object of the beggar's prayer. A sea captain wrote from Bordeaux requesting Franklin to obtain from M. de Sartine, Minister of Marine, a special dispensation in his behalf that he might be exempted from service on the king's ships. He said that he desired this favour in order to accept the command of a merchant ship bound for Charlestown. Franklin replied: "SIR: it being extreamly improper for me who am a Stranger here to trouble the Ministers with Solicitations for Persons unknown to me and in Affairs the nature of which I am ignorant of, I must beg you to excuse my not doing what you desire of me. I return your Papers as they may be of Use to you" (December 17, 1778).

Struggling educational institutions in America entreated him to obtain aid for them from the French government. John Trumbull wrote to him (November 9, 1782) regarding Dartmouth College, and introduced to him President Wheelock, who was going abroad to solicit benefactions. Stephen Hopkins, on behalf of Brown University (January 9, 1784), asked him to persuade Louis XVI to give books and to endow a chair of French in the college, and David Howell repeated the appeal (February 20, 1786). Witherspoon visited him upon a like errand to ask him to look with a favourable eye upon Princeton (March 27, 1784). John Montgomery appealed to him for funds for Dickinson College. He tried with varying degrees of success to assist all these institutions,

and in many instances gave liberally from his own private purse. He presented a library of three hundred books to the town of Franklin in New Hampshire. He made presents of books to the Library Company of Philadelphia, the University of Pennsylvania, Yale College, the universities of Glasgow and St. Andrews, and persuaded Dr. Lettsom to send a box of books to Dickinson College. Moreover, he devised a plan for increasing and improving the library of Harvard College (September 11, 1755), and himself contributed a substantial sum toward the fund. To the college which bore his name in Pennsylvania, he gave a thousand pounds.

Franklin's love of music appears in an interesting manner in his correspondence. He played the harp, the guitar, and the violin, and he invented the armonica, a now obsolete instrument, which he fancied was destined to supersede the piano and harpsichord. The first suggestion of it came to him upon hearing a member of the Royal Society (Mr. Delaval) play melodies by rubbing his fingers upon the edges of glass bowls, which had been tuned "by putting into them water more or less as each note required." A full description of the instrument will be found in a letter addressed to John Baptist Beccaria, July 13, 1762; and directions for drawing out the tone from the glasses of the armonica will be found in a letter to Dr. Dubourg, December 8, 1772.

At the social gatherings at Mme. Brillon's house, Franklin delighted to play the armonica, and frequently in her letters to him she refers to the compositions which were thus performed. Upon one occasion, she writes: "Happiness is so uncertain so many obstacles are encountered in its pursuit, that the intimate persuasion of being happier in another life

can alone help us to bear with the trials of this one. In Paradise we will be reunited never to leave each other again! We shall there live on roasted apples only; the music will be composed of Scotch airs; all games will be given over to chess, so that no one may be disappointed; everyone will speak the same language; the English will be neither unjust nor wicked there; the women will not be coquettes, men will be neither jealous nor too gallant. King John will be left to eat his apples in peace; perhaps he will be decent enough to offer some to his neighbours, who knows, since we shall want for nothing in Paradise! We shall never suffer from gout there, nor from our nerves; M. Mesmer will content himself with playing on the harmonica, without bothering us about electric fluids; ambition, envy, pretensions, jealousy, prejudices, all that will vanish at the sound of the trumpet."

To this paradisaical prospect, Franklin replied in a similar tone of cheerful banter: "More than forty years will probably elapse from the time of my arrival in Heaven before you follow me. . . . I shall have enough time during these forty years to practise on the harmonica and perhaps may be able to play well enough to accompany you on the pianoforte. From time to time we shall have little concerts: good Father Pagin will be of the party; your neighbour and his dear family, M. de Chaumont, Mr. B—. Mr. Jourdan, M. Grammont, Mme. du Tartre, the little mother, and other chosen friends will form our audience and the dear good girls accompanied by some other young angels whose portraits you have already given me will sing the Alleluias with us; we shall eat together apples of paradise, roasted with butter and nutmeg, and we shall pity those who are not dead." Homesick

in the Riviera, she writes to him of her longing for the little parties at home, "when the Abbés la Roche and Morellet will eat all the butter, Pére Pagin will play the 'God of Love' on the violin, I the 'March' on the piano, you 'Little Birds' on the Armonica."

A friend searched in vain in Paris for a harp which Franklin had commissioned him to purchase, and offered to procure him "a pianoforte if it will supply the place of the harp." This was probably the pianoforte which Franklin left behind him when he returned to America, and which eight months after his departure was sold by Le Veillard for twelve louis.

Mary Ann Davies was the first person to play in public upon the armonica. The first occasion was the celebration of the nuptials of the Duke of Parma and the Archduchess of Austria, and the performance was in the presence of the Imperial Court of Vienna. Miss Davies played, and her sister sang, an ode composed for the occasion by Metastasio. The instrument had a temporary popularity and several of them were made and sold in London at forty guineas each. Franklin complained of the delays and caprices of the workmen, and wrote to Miss Stevenson (March 25, 1763): "I am vex'd with Mr. James that he has been so dilatory in Mr. Maddison's Armonica. I was unlucky in both the Workmen, that I permitted to undertake making those Instruments. The first was fanciful, and never could work to the purpose, because he was ever conceiving some new Improvement, that answer'd no End. The other, I doubt, is absolutely idle."

Some slight improvements in the instrument were made in 1783 by Deudon, who was shown it by Franklin and Diderot; and Professor Steinsky, of Prague, wrote to Franklin (August

3, 1783) that a Mr. Renner, of the University of Prague, had also made some minor improvements.

Charles Stamitz, "compositeur de Musique de la Cour de Vienne et celle de la Haye," proposed to come to America as a "maître de musique," and wrote to Franklin (October 2, 1783) that M. Clerval was about to take across the ocean "une troupe française." Franklin jotted upon the letter the following brief memorandum for a reply: "That the Beaux Arts are much better encouraged in Europe than in America, where the people are not so rich. That I cannot therefore advise him to go there. That I doubt the success of M. Clerval's project: our Country not being yet ripe for such Amusements."

That erratic wanderer, Abbé Vogler, who delighted Europe with his brilliant performances, and who indulged in novel and visionary "systems," visited Franklin at Passy to explain his new musical theory, and to invite Franklin's attention to his new invention, the *tonomètre*. Following his interview he wrote to Franklin (March 5, 1783) and begged that he would honour with his presence "un Opera que j'ai mis en musique et qu'on donnera bientot aux Italiens intitulé *le Patriotisme*."

Franklin's love of music was well and widely known, and while a celebrated German composer travelled to Passy to solicit his judgment upon a musical theory and a musical invention, a less known musician (John Antes) sent him from Cairo six quartets which he had composed for his friend the Marquis de Hauteford to produce at the Harmonical Society of Bengal.

His taste in music was simple. He took no pleasure in "modern affected ornament," and was chiefly moved by

Scotch airs. His exposition of the "Ideal Harmony of the Scottish Melodies" will be found acutely and simply set forth in a letter to Lord Kames (June 2, 1765); and his criticism of the defects of modern music, in a letter to Peter Franklin, without date. "The fine singer," he says, "in the present mode, stifles all the hard consonants, and polishes away all the rougher parts of words that serve to distinguish them one from another; so that you hear nothing but an admirable pipe, and understand no more of the song, than you would from its tune played on any other instrument. If ever it was the ambition of musicians to make instruments that should imitate the human voice, that ambition seems now reversed, the voice aiming to be like an instrument. Thus wigs were first made to imitate a good natural head of hair; but when they became fashionable though in unnatural forms, we have seen natural hair dressed to look like wigs."

The first words in Franklin's will are "I Benjamin Franklin, *Printer.*" Throughout his life he was chiefly interested in printing, and his most intimate friends were members of that craft. He was learned in paper, types, and ink. In England his dearest confidential companion was William Strahan, — "dear Straney," — the King's Printer, through whom he had become acquainted with Adam Smith. There was business and love between them. The famous letter — "You are a member of Parliament and one of that majority which has doomed my country to destruction. You have begun to burn our towns, and murder our People. Look upon your hands, they are stained with the blood of your relations. You and I were long friends; you are now my *enemy,* and I am, yours, B. Franklin " — was merely a *jeu d'esprit,* never meant to be taken seriously. No political

circumstance or private difference created the slightest estrangement of these friends. They lived to the end without a moment's jar, or coldness or peevishness.

With other printers Franklin maintained interesting correspondence. He felt warm sympathy with Baskerville, and admired the superb specimens of his art, examples of which he sent to the libraries of America. John Walter submitted his plan of logographic printing to Franklin in December, 1783.

In France he corresponded with Didot, who got from him his first notion of stereotyping, and with Pierres (Imp^{r} Ord^{re} du Roi), to whom he gave the special paper upon which to print his "Manuel d'Epictete en Grec," and with Fournier, the celebrated type founder and publisher of a "Manuel Typographique." He was proud of his ink, which preserves to-day its glossy blackness, and compared it with each new ink that he saw advertised. Jacques Besse wrote to him about the preparation of durable inks and told him of the process employed in England by which coloured maps were produced on handkerchiefs, London in red on one side, and Paris in blue on the other!

His business relations with James Parker, of Woodbury, New Jersey, led to much correspondence with that weeping philosopher, whose letters are a constant wail of distress. He appears beset with difficulties, always ill and poor. He complains of the great cost of living: to go naked and to pay no debts seems to be the only way to solve the problem of life. "Our friend Chew of New London," he says, "is the compleatest parrier of a Dun that I have any occasion to treat of." Parker complains that he is the victim of the most contrary *troubles* — "Gout and poverty at once! Are

they not inconsistent?" "A little more struggling through life will probably carry me out of it," and so he goes on with his jeremiads until Franklin is obliged to tell him that he is hurt by his "voluminous complaints."

An Englishman, William Parsons, wrote to Franklin from Dieppe, asking him to answer in English as he was a "poor proficient in the French language." The same might be said of Franklin. He acquired the conversational use of French after he had passed his seventieth year, and was never at ease in speech or correct in writing the language. He wrote to Felix Nogaret that his grandson was the better master of French, but for his own poor part he must write in English, of which he had no doubt that Nogaret would grasp the meaning. The other commissioners were less familiar with the language. Jefferson said, "I understand the French so imperfectly as to be uncertain whether those to whom I speak and myself mean the same thing" (August 16, 1784). And Beaumarchais wrote to Vergennes (August 13, 1776) that he had been assured by Mr. Deane that he never opened his mouth before the English people he met in Paris, sarcastically adding, "We must conclude from this that he is the most silent man in France, for I defy him to say six consecutive words before Frenchmen."

Franklin rarely attempted to write a business or official letter in French, but he frequently ventured in carrying on his social correspondence. After such an attempt, when he had lamented his blunders, Mme. Brillon wrote to him: "My good papa, why do you say that you write French badly, that your pleasantries in that language are only nonsense? To make an academic discourse one must be a good grammarian, but to write to our friends all we need is a heart,

and you combine with the best heart, when you wish, the soundest moral teaching, a lively imagination, and that droll roguishness which shows that the wisest of men allows at each instant his wisdom to be broken against the rocks of femininity." Still less familiar was he with other languages, though he read with some facility Latin, Italian, Spanish, and German. It was difficult for him to read German script, and letters in that language he was accustomed to send to a fair friend, saying "M. Franklin prie sa fidele Interpréte de jetter ses beaux Yeux sur ces ecrits Allemands, et de lui dire á la premiere rencontre, leur contenu en peu de mots."

Among the serious correspondence of an official and scientific nature are bundles of dainty little notes in feminine caligraphy, smelling faintly of perfume and full of roguery. Hundreds of letters turn up addressed to "tres cher papa," "Dear American father," "amiable papa," and full of artfulness and mingled French and English, "Je vous envoye a sweet kiss, dear Papa, envoyer moi en revanche, un Mot de Reponse." Harassed as he was by business cares, and weighted with official burdens, old and gouty and physically indolent, Franklin escaped from the anxieties of his station and unbent from the cares of state, in the cheerful companionship of fair and witty women. This correspondence has been hitherto neglected. But it represents an essential phase of Franklin's life and liberal portions of it are printed in these volumes. To know the real and many-sided Franklin, we must seek him in the laboratory of Lavoisier, in the cabinet of Comte de Vergennes, and in the merry *salon* of Mme. Helvétius, — "our lady of Auteuil."

THE AUTOBIOGRAPHY

1. FRANKLIN'S DRAFT SCHEME OF THE AUTOBIOGRAPHY

[*Copie d'un Projet tres Curieux de Benjamin Franklin — 1ere Esquisse de ses Mémoires. Les additions à l'encre rouge sont de la main de Franklin.*][1]

My writing. Mrs. Dogood's letters. Differences arise between my Brother and me (his temper and mine); their cause in general. His Newspaper. The Prosecution he suffered. My Examination. Vote of Assembly. His manner of evading it. Whereby I became free. My attempt to get employ with other Printers. He prevents me. Our frequent pleadings before our Father. The final Breach. My Inducements to quit Boston. Manner of coming to a Resolution. My leaving him and going to New York (return to eating flesh); thence to Pennsylvania. The journey, and its events on the Bay, at Amboy. The road. Meet with Dr. Brown. His character. His great work. At Burlington. The Good Woman. On the River. My Arrival at Philadelphia. First Meal and first Sleep. Money left. Employment. Lodging. First acquaintance with my afterward Wife. With J. Ralph. With Keimer. Their characters. Osborne. Watson. The Governor takes notice of me. The Occasion

[1] This memorandum, probably in the handwriting of M. le Veillard, immediately precedes the Outline in the MS. — B.

and Manner. His character. Offers to set me up. My return to Boston. Voyage and accidents. Reception. My Father dislikes the proposal. I return to New York and Philadelphia. Governor Burnet. J. Collins. The Money for Vernon. The Governor's Deceit. Collins not finding employment goes to Barbados much in my Debt. Ralph and I go to England. Disappointment of Governor's Letters. Colonel French his Friend. Cornwallis's Letters. Cabbin. Denham. Hamilton. Arrival in England. Get employment. Ralph not. He is an expense to me. Adventures in England. Write a Pamphlet and print 100. Schemes. Lyons. Dr. Pemberton. My diligence, and yet poor through Ralph. My Landlady. Her character. Wygate. Wilkes. Cibber. Plays. Books I borrowed. Preachers I heard. Redmayne. At Watts's. Temperance. Ghost. Conduct and Influence among the Men. Persuaded by Mr. Denham to return with him to Philadelphia and be his clerk. Our voyage and arrival. My resolutions in Writing. My Sickness. His Death. Found D. R. married. Go to work again with Keimer. Terms. His ill-usage of me. My Resentment. Saying of Decow. My Friends at Burlington. Agreement with H. Meredith to set up in Partnership. Do so. Success with the Assembly. Hamilton's Friendship. Sewell's History. Gazette. Paper money. Webb. Writing Busy Body. Breintnal. Godfrey. His character. Suit against us. Offer of my Friends, Coleman and Grace. Continue the Business, and M. goes to Carolina. Pamphlet on Paper Money. Gazette from Keimer. Junto credit; its plan. Marry. Library erected. Manner of conducting the project. Its plan and utility. Children. Almanac. The use I made of it. Great industry. Constant study. Father's Remark and

Advice upon Diligence. Carolina Partnership. Learn French and German. Journey to Boston after ten years. Affection of my Brother. His Death, and leaving me his Son. Art of Virtue. Occasion. City Watch amended. Post-office. Spotswood. Bradford's Behaviour. Clerk of Assembly. Lose one of my Sons. Project of subordinate Juntos. Write occasionally in the papers. Success in Business. Fire companies. Engines. Go again to Boston in 1743. See Dr. Spence. Whitefield. My connection with him. His generosity to me. My return. Church Differences. My part in them. Propose a College. Not then prosecuted. Propose and establish a Philosophical Society. War. Electricity. My first knowledge of it. Partnership with D. Hall, etc. Dispute in Assembly upon Defence. Project for it. Plain Truth. Its success. Ten thousand Men raised and disciplined. Lotteries. Battery built. New Castle. My influence in the Council. Colours, Devices, and Mottos. Ladies' Military Watch. Quakers chosen of the Common Council. Put in the commission of the peace. Logan fond of me. His Library. Appointed Postmaster-General. Chosen Assemblyman. Commissioner to treat with Indians at Carlisle and at Easton. Project and establish Academy. Pamphlet on it. Journey to Boston. At Albany. Plan of union of the colonies. Copy of it. Remarks upon it. It fails, and how. Journey to Boston in 1754. Disputes about it in our Assembly. My part in them. New Governor. Disputes with him. His character and sayings to me. Chosen Alderman. Project of Hospital. My share in it. Its success. Boxes. Made a Commissioner of the Treasury. My commission to defend the frontier counties. Raise Men and build Forts. Militia Law of my

drawing. Made Colonel. Parade of my Officers. Offence to Proprietor. Assistance to Boston Ambassadors. Journey with Shirley, etc. Meet with Braddock. Assistance to him. To the Officers of his Army. Furnish him with Forage. His concessions to me and character of me. Success of my Electrical Experiments. Medal sent me. Present Royal Society, and Speech of President. Denny's Arrival and Courtship to me. His character. My service to the Army in the affair of Quarters. Disputes about the Proprietor's Taxes continued. Project for paving the City. I am sent to England. Negotiation there. *Canada delenda est.* My Pamphlet. Its reception and effect. Projects drawn from me concerning the Conquest. Acquaintance made and their services to me — Mrs. S. M. Small, Sir John P., Mr. Wood, Sargent, Strahan, and others. Their characters. Doctorate from Edinburgh, St. Andrew's. Doctorate from Oxford. Journey to Scotland. Lord Leicester. Mr. Prat. De Grey. Jackson. State of Affairs in England. Delays. Eventful Journey into Holland and Flanders. Agency from Maryland. Son's appointment. My Return. Allowance and thanks. Journey to Boston. John Penn, Governor. My conduct toward him. The Paxton Murders. My Pamphlet. Rioters march to Philadelphia. Governor retires to my House. My conduct. Sent out to the Insurgents. Turn them back. Little thanks. Disputes revived. Resolutions against continuing under Proprietary Government. Another Pamphlet. Cool thoughts. Sent again to England with Petition. Negotiation there. Lord H. His character. Agencies from New Jersey, Georgia, Massachusetts. Journey into Germany, 1766. Civilities received there. Göttingen Observations. Ditto into France in 1767. Ditto in 1769. Entertainment

there at the Academy. Introduced to the King and the Mesdames, Mad. Victoria and Mrs. Lamagnon. Duc de Chaulnes, M. Beaumont, Le Roy, D'Alibard, Nollet. See Journals. Holland. Reprint my papers and add many. Books presented to me from many authors. My Book translated into French. Lightning Kite. Various Discoveries. My manner of prosecuting that Study. King of Denmark invites me to dinner. Recollect my Father's Proverb. Stamp Act. My opposition to it. Recommendation of J. Hughes. Amendment of it. Examination in Parliament. Reputation it gave me. Caressed by Ministry. Charles Townshend's Act. Opposition to it. Stoves and chimney-plates. Armonica. Acquaintance with Ambassadors. Russian Intimation. Writing in newspapers. Glasses from Germany. Grant of Land in Nova Scotia. Sickness. Letters to America returned hither. The consequences. Insurance Office. My character. Costs me nothing to be civil to inferiors; a good deal to be submissive to superiors, etc., etc. Farce of Perpetual Motion. Writing for Jersey Assembly.[1] Hutchinson's Letters. Temple. Suit in Chancery. Abuse before the Privy Council. Lord Hillsborough's character and conduct. Lord Dartmouth. Negotiation to prevent the War. Return to America. Bishop of St. Asaph. Congress. Assembly. Committee of Safety. Chevaux-de-frise. Sent to Boston, to the Camp. To Canada, to Lord Howe. To France. Treaty, etc.

[1] To this point the *projet* is in a strange and clerkly hand. The remainder is in the handwriting of Franklin. — B.

THE AUTOBIOGRAPHY

of my past life to His kind providence, which lead me to the means I used and gave them success. My belief of this induces me to *hope*, though I must not *presume*, that the same goodness will still be exercised toward me, in continuing that happiness, or enabling me to bear a fatal reverse, which I may experience as others have done; the complexion of my future fortune being known to Him only in whose power it is to bless to us even our afflictions.

The notes one of my uncles (who had the same kind of curiosity in collecting family anecdotes) once put into my hands, furnished me with several particulars relating to our ancestors. From these notes I learned that the family had lived in the same village, Ecton, in Northamptonshire, for three hundred years, and how much longer he knew not (perhaps from the time when the name of Franklin, that before was the name of an order of people, was assumed by them as a surname when others took surnames all over the kingdom), on a freehold of about thirty acres, aided by the smith's business, which had continued in the family till his time, the eldest son being always bred to that business; a custom which he and my father followed as to their eldest sons. When I searched the registers at Ecton, I found an account of their births, marriages and burials from the year 1555 only, there being no registers kept in that parish at any time preceding. By that register I perceived that I was the youngest son of the youngest son for five generations back. My grandfather Thomas, who was born in 1598, lived at Ecton till he grew too old to follow business longer, when he went to live with his son John, a dyer at Banbury, in Oxfordshire, with whom my father served an apprenticeship. There my grandfather died and lies buried. We saw his

gravestone in 1758. His eldest son Thomas lived in the house at Ecton, and left it with the land to his only child, a daughter, who, with her husband, one Fisher, of Wellingborough, sold it to Mr. Isted, now lord of the manor there. My grandfather had four sons that grew up, viz.: Thomas, John, Benjamin and Josiah. I will give you what account I can of them at this distance from my papers, and if these are not lost in my absence, you will among them find many more particulars.

Thomas was bred a smith under his father; but, being ingenious, and encouraged in learning (as all my brothers were) by an Esquire Palmer, then the principal gentleman in that parish, he qualified himself for the business of scrivener; became a considerable man in the county; was a chief mover of all public-spirited undertakings for the county or town of Northampton; and his own village, of which many instances were related of him; and much taken notice of and patronized by the then Lord Halifax. He died in 1702, January 6, old style, just four years to a day before I was born. The account we received of his life and character from some old people at Ecton, I remember, struck you as something extraordinary, from its similarity to what you knew of mine. "Had he died on the same day," you said, "one might have supposed a transmigration."

John was bred a dyer, I believe of woollens. Benjamin was bred a silk dyer, serving an apprenticeship at London. He was an ingenious man. I remember him well, for when I was a boy he came over to my father in Boston, and lived in the house with us some years. He lived to a great age. His grandson, Samuel Franklin, now lives in Boston. He *left behind him two quarto* volumes, MS., of his own poetry,

consisting of little occasional pieces addressed to his friends and relations, of which the following, sent to me, is a specimen.[1] He had formed a short-hand of his own, which he taught me, but, never practising it, I have now forgot it. I was named after this uncle, there being a particular affection between him and my father. He was very pious, a great attender of sermons of the best preachers, which he took down in his short-hand, and had with him many volumes of them. He was also much of a politician; too much, perhaps, for his station. There fell lately into my hands, in London, a collection he had made of all the principal pamphlets relating to public affairs, from 1641 to 1717; many of the volumes are wanting as appears by the numbering, but there still remain eight volumes in folio, and twenty-four in quarto and in octavo. A dealer in old books met with them, and knowing me by my sometimes buying of him, he brought them to me. It seems my uncle must have left them here when he went to America, which was above fifty years since. There are many of his notes in the margins.

This obscure family of ours was early in the Reformation, and continued Protestants through the reign of Queen Mary, when they were sometimes in danger of trouble on account of their zeal against popery. They had got an English Bible, and to conceal and secure it, it was fastened open with tapes under and within the cover of a joint-stool. When my great-great-grandfather read it to his family, he turned up the joint-stool upon his knees, turning over the leaves then under the tapes. One of the children stood at the door to give notice if he saw the apparitor coming, who was an officer of the

[1] "Here follows in the margin the words, in brackets, 'here insert it,' but the poetry is not given."—B.

spiritual court. In that case the stool was turned down again upon its feet, when the Bible remained concealed under it as before. This anecdote I had from my uncle Benjamin. The family continued all of the Church of England till about the end of Charles the Second's reign, when some of the ministers that had been outed for non-conformity holding conventicles in Northamptonshire, Benjamin and Josiah adhered to them, and so continued all their lives: the rest of the family remained with the Episcopal Church.

Josiah, my father, married young, and carried his wife with three children into New England, about 1682. The conventicles having been forbidden by law, and frequently disturbed, induced some considerable men of his acquaintance to remove to that country, and he was prevailed with to accompany them thither, where they expected to enjoy their mode of religion with freedom. By the same wife he had four children more born there, and by a second wife ten more, in all seventeen; of which I remember thirteen sitting at one time at his table, who all grew up to be men and women, and married; I was the youngest son, and the youngest child but two, and was born in Boston, New England. My mother, the second wife, was Abiah Folger, daughter of Peter Folger, one of the first settlers of New England, of whom honorable mention is made by Cotton Mather, in his church history of that country, entitled *Magnalia Christi Americana*, as "*a godly, learned Englishman*," if I remember the words rightly. I have heard that he wrote sundry small occasional pieces, but only one of them was printed, which I saw now many years since. It was written in 1675, in the home-spun verse of that time and people, and addressed to those then concerned in the government there. It was in

favour of liberty of conscience, and in behalf of the Baptists, Quakers, and other sectaries that had been under persecution, ascribing the Indian wars, and other distresses that had befallen the country, to that persecution, as so many judgments of God to punish so heinous an offense, and exhorting a repeal of those uncharitable laws. The whole appeared to me as written with a good deal of decent plainness and manly freedom. The six concluding lines I remember, though I have forgotten the two first of the stanza; but the purport of them was, that his censures proceeded from good-will, and, therefore, he would be known to be the author.

"Because to be a libeller (says he)
I hate it with my heart;
From Sherburne[1] town, where now I dwell
My name I do put here;
Without offense your real friend,
It is Peter Folgier."[2]

My elder brothers were all put apprentices to different trades. I was put to the grammar-school at eight years of age, my father intending to devote me, as the tithe of his sons, to the service of the Church. My early readiness in learning to read (which must have been very early, as I do not remember when I could not read), and the opinion of all his friends, that I should certainly make a good scholar, encouraged him in this purpose of his. My uncle Benjamin, too, approved of it, and proposed to give me all his short-hand volumes of sermons, I suppose as a stock to set up with, if I would learn

[1] Sherburne is now known by the name of Nantucket.

[2] From "A Looking-Glass for the Times; or The Former Spirit of New England Revived in this Generation," by Peter Folger (1617–1690). The verses are printed in a pamphlet of fourteen pages, dated April 23, 1676. — Ed.

his character. I continued, however, at the grammar-school not quite one year, though in that time I had risen gradually from the middle of the class of that year to be the head of it, and farther was removed into the next class above it, in order to go with that into the third at the end of the year. But my father, in the meantime, from a view of the expense of a college education, which having so large a family he could not well afford, and the mean living many so educated were afterwards able to obtain — reasons that he gave to his friends in my hearing — altered his first intention, took me from the grammar-school, and sent me to a school for writing and arithmetic, kept by a then famous man, Mr. George Brownell, very successful in his profession generally, and that by mild, encouraging methods. Under him I acquired fair writing pretty soon, but I failed in the arithmetic, and made no progress in it. At ten years old I was taken home to assist my father in his business, which was that of a tallow-chandler and sope-boiler; a business he was not bred to, but had assumed on his arrival in New England, and on finding his dying trade would not maintain his family, being in little request. Accordingly, I was employed in cutting wick for the candles, filling the dipping mold and the molds for cast candles, attending the shop, going of errands, etc.

I disliked the trade, and had a strong inclination for the sea, but my father declared against it; however, living near the water, I was much in and about it, learnt early to swim well, and to manage boats; and when in a boat or canoe with other boys, I was commonly allowed to govern, especially in any case of difficulty; and upon other occasions I was generally a leader among the boys, and sometimes led them into scrapes, of which I will mention one instance, as

it shows an early projecting public spirit, tho' not then justly conducted.

There was a salt-marsh that bounded part of the mill-pond, on the edge of which, at high water, we used to stand to fish for minnows. By much trampling, we had made it a mere quagmire. My proposal was to build a wharff there fit for us to stand upon, and I showed my comrades a large heap of stones, which were intended for a new house near the marsh, and which would very well suit our purpose. Accordingly, in the evening, when the workmen were gone, I assembled a number of my play-fellows, and working with them diligently like so many emmets, sometimes two or three to a stone, we brought them all away and built our little wharff. The next morning the workmen were surprised at missing the stones, which were found in our wharff. Inquiry was made after the removers; we were discovered and complained of; several of us were corrected by our fathers; and, though I pleaded the usefulness of the work, mine convinced me that nothing was useful which was not honest.

I think you may like to know something of his person and character. He had an excellent constitution of body, was of middle stature, but well set, and very strong; he was ingenious, could draw prettily, was skilled a little in music, and had a clear pleasing voice, so that when he played psalm tunes on his violin and sung withal, as he sometimes did in an evening after the business of the day was over, it was extremely agreeable to hear. He had a mechanical genius too, and, on occasion, was very handy in the use of other *tradesmen's* tools; but his great excellence lay in a sound *understanding* and solid judgment in prudential matters,

both in private and publick affairs. In the latter, indeed, he was never employed, the numerous family he had to educate and the straitness of his circumstances keeping him close to his trade; but I remember well his being frequently visited by leading people, who consulted him for his opinion in affairs of the town or of the church he belonged to, and showed a good deal of respect for his judgment and advice: he was also much consulted by private persons about their affairs when any difficulty occurred, and frequently chosen an arbitrator between contending parties. At his table he liked to have, as often as he could, some sensible friend or neighbour to converse with, and always took care to start some ingenious or useful topic for discourse, which might tend to improve the minds of his children. By this means he turned our attention to what was good, just, and prudent in the conduct of life; and little or no notice was ever taken of what related to the victuals on the table, whether it was well or ill dressed, in or out of season, of good or bad flavour, preferable or inferior to this or that other thing of the kind, so that I was bro't up in such a perfect inattention to those matters as to be quite indifferent what kind of food was set before me, and so unobservant of it, that to this day if I am asked I can scarce tell a few hours after dinner what I dined upon. This has been a convenience to me in travelling, where my companions have been sometimes very unhappy for want of a suitable gratification of their more delicate, because better instructed, tastes and appetites.

My mother had likewise an excellent constitution: she suckled all her ten children. I never knew either my father or mother to have any sickness but that of which they dy'd, he *at 89, and she at* 85 years of age. They lie buried

together at Boston, where I some years since placed a marble over their grave, with this inscription:

JOSIAH FRANKLIN
And
ABIAH his wife,
Lie here interred.
They lived lovingly together in wedlock
Fifty-five years.
Without an estate, or any gainful employment,
By constant labor and industry,
With God's blessing,
They maintained a large family
Comfortably,
And brought up thirteen children
And seven grandchildren
Reputably.
From this instance, reader,
Be encouraged to diligence in thy calling,
And distrust not Providence.
He was a pious and prudent man;
She, a discreet and virtuous woman.
Their youngest son,
In filial regard to their memory,
Places this stone.
J. F. born 1655, died 1744, Ætat 89.
A. F. born 1667, died 1752, —— 85.[1]

[1] A more durable monument was erected over the grave in 1827 by the voluntary subscriptions of a large number of the citizens of Boston. The corner-stone was laid on the 15th of June, 1827, and an address appropriate to the occasion was pronounced by General Henry A. S. Dearborn.

The monument is an obelisk of granite, twenty-one feet high, which rests on a square base measuring seven feet on each side and two feet in height. The obelisk is composed of five massive blocks of granite placed one above another. On one side is the name of FRANKLIN in large bronze letters, and *a little* below is a tablet of bronze, thirty-two inches long and sixteen wide, *sunk into* the stone. On this tablet is engraved Dr. Franklin's original inscription, as quoted in the text, and beneath it are the following lines: —

By my rambling digressions I perceive myself to be grown old. I us'd to write more methodically. But one does not dress for private company as for a publick ball. 'Tis perhaps only negligence.

To return: I continued thus employed in my father's business for two years, that is, till I was twelve years old; and my brother John, who was bred to that business, having left my father, married, and set up for himself at Rhode Island, there was all appearance that I was destined to supply his place, and become a tallow-chandler. But my dislike to the trade continuing, my father was under apprehensions that if he did not find one for me more agreeable, I should break away and get to sea, as his son Josiah had done, to his great vexation. He therefore sometimes took me to walk with him, and see joiners, bricklayers, turners, braziers, etc., at their work, that he might observe my inclination, and endeavour to fix it on

"The marble tablet,
Bearing the above inscription,
Having been dilapidated by the ravages of time,
A number of citizens,
Entertaining the most profound veneration
For the memory of the illustrious
Benjamin Franklin,
And desirous of reminding succeeding generations,
That he was born in Boston, A. D. MDCCVI,
Erected this
Obelisk
Over the graves of his parents.
MDCCCXXVII."

A silver plate was deposited under the corner-stone, with an inscription commemorative of the occasion, a part of which is as follows: "This Monument was erected over the Remains of the Parents of Benjamin Franklin by the Citizens of Boston, from Respect to the Private Character and Public Services of this Illustrious Patriot and Philosopher, and for the many Tokens *of his affectionate Attachment* to his native Town."—S.

some trade or other on land. It has ever since been a pleasure to me to see good workmen handle their tools; and it has been useful to me, having learnt so much by it as to be able to do little jobs myself in my house when a workman could not readily be got, and to construct little machines for my experiments, while the intention of making the experiment was fresh and warm in my mind. My father at last fixed upon the cutler's trade, and my uncle Benjamin's son Samuel, who was bred to that business in London, being about that time established in Boston, I was sent to be with him some time on liking. But his expectations of a fee with me displeasing my father, I was taken home again.

From a child I was fond of reading, and all the little money that came into my hands was ever laid out in books. Pleased with the Pilgrim's Progress, my first collection was of John Bunyan's works in separate little volumes. I afterward sold them to enable me to buy R. Burton's Historical Collections; they were small chapmen's books, and cheap, 40 or 50 in all. My father's little library consisted chiefly of books in polemic divinity, most of which I read, and have since often regretted that, at a time when I had such a thirst for knowledge, more proper books had not fallen in my way, since it was now resolved I should not be a clergyman. Plutarch's *Lives* there was in which I read abundantly, and I still think that time spent to great advantage. There was also a book of De Foe's, called an Essay on Projects, and another of Dr. Mather's, called Essays to do Good,[1] which perhaps gave me a turn of thinking that had an influence on some of the principal future events of my life.

[1] "*Bonifacius.* An Essay upon the Good that is to be Devised and Designed by those who desire to answer the Great End of Life, and to do good while they live." Boston: 1710. — ED.

This bookish inclination at length determined my father to make me a printer, though he had already one son (James) of that profession. In 1717 my brother James returned from England with a press and letters to set up his business in Boston. I liked it much better than that of my father, but still had a hankering for the sea. To prevent the apprehended effect of such an inclination, my father was impatient to have me bound to my brother. I stood out some time, but at last was persuaded, and signed the indentures when I was yet but twelve years old. I was to serve as an apprentice till I was twenty-one years of age, only I was to be allowed journeyman's wages during the last year. In a little time I made great proficiency in the business, and became a useful hand to my brother. I now had access to better books. An acquaintance with the apprentices of booksellers enabled me sometimes to borrow a small one, which I was careful to return soon and clean. Often I sat up in my room reading the greatest part of the night, when the book was borrowed in the evening and to be returned early in the morning, lest it should be missed or wanted.

And after some time an ingenious tradesman, Mr. Matthew Adams, who had a pretty collection of books, and who frequented our printing-house, took notice of me, invited me to his library, and very kindly lent me such books as I chose to read. I now took a fancy to poetry, and made some little pieces; my brother, thinking it might turn to account, encouraged me and put me on composing occasional ballads. One was called *The Lighthouse Tragedy*, and contained an account of the drowning of Captain Worthilake, with his two daughters: the other was a sailor's song, on the taking of *Teach (or Blackbeard)* the pirate. They were wretched

stuff, in the Grub-street-ballad style; and when they were printed he sent me about the town to sell them. The first sold wonderfully, the event being recent, having made a great noise. This flattered my vanity; but my father discouraged me by ridiculing my performances, and telling me verse-makers were generally beggars. So I escaped being a poet, most probably a very bad one; but as prose writing has been of great use to me in the course of my life, and was a principal means of my advancement, I shall tell you how, in such a situation, I acquired what little ability I have in that way.

There was another bookish lad in the town, John Collins by name, with whom I was intimately acquainted. We sometimes disputed, and very fond we were of argument, and very desirous of confuting one another, which disputatious turn, by the way, is apt to become a very bad habit, making people often extremely disagreeable in company by the contradiction that is necessary to bring it into practice; and thence, besides souring and spoiling the conversation, is productive of disgusts and, perhaps enmities where you may have occasion for friendship. I had caught it by reading my father's books of dispute about religion. Persons of good sense, I have since observed, seldom fall into it, except lawyers, university men, and men of all sorts that have been bred at Edinborough.

A question was once, somehow or other, started between Collins and me, of the propriety of educating the female sex in learning, and their abilities for study. He was of opinion that it was improper, and that they were naturally unequal to it. I took the contrary side, perhaps a little for dispute's sake. He was naturally more eloquent, had a ready plenty of words; and sometimes, as I thought, bore me down more

by his fluency than by the strength of his reasons. As we parted without settling the point, and were not to see one another again for some time, I sat down to put my arguments in writing, which I copied fair and sent to him. He answered, and I replied. Three or four letters of a side had passed, when my father happened to find my papers and read them. Without entering into the discussion, he took occasion to talk to me about the manner of my writing; observed that, though I had the advantage of my antagonist in correct spelling and pointing (which I ow'd to the printing-house), I fell far short in elegance of expression, in method and in perspicuity, of which he convinced me by several instances. I saw the justice of his remarks, and thence grew more attentive to the manner in writing, and determined to endeavour at improvement.

About this time I met with an odd volume of the *Spectator*. It was the third. I had never before seen any of them. I bought it, read it over and over, and was much delighted with it. I thought the writing excellent, and wished, if possible, to imitate it. With this view I took some of the papers, and, making short hints of the sentiment in each sentence, laid them by a few days, and then, without looking at the book, try'd to compleat the papers again, by expressing each hinted sentiment at length, and as fully as it had been expressed before, in any suitable words that should come to hand. Then I compared my *Spectator* with the original, discovered some of my faults, and corrected them. But I found I wanted a stock of words, or a readiness in recollecting and using them, which I thought I should have acquired before that time if I had gone on making verses; since the continual occasion for words of the same import, but of dif-

ferent length, to suit the measure, or of different sound for the rhyme, would have laid me under a constant necessity of searching for variety, and also have tended to fix that variety in my mind, and make me master of it. Therefore I took some of the tales and turned them into verse; and, after a time, when I had pretty well forgotten the prose, turned them back again. I also sometimes jumbled my collections of hints into confusion, and after some weeks endeavoured to reduce them into the best order, before I began to form the full sentences and compleat the paper. This was to teach me method in the arrangement of thoughts. By comparing my work afterwards with the original, I discovered many faults and amended them; but I sometimes had the pleasure of fancying that, in certain particulars of small import, I had been lucky enough to improve the method or the language, and this encouraged me to think I might possibly in time come to be a tolerable English writer, of which I was extreamly ambitious. My time for these exercises and for reading was at night, after work or before it began in the morning, or on Sundays, when I contrived to be in the printing-house alone, evading as much as I could the common attendance on public worship which my father used to exact of me when I was under his care, and which indeed I still thought a duty, though I could not, as it seemed to me, afford time to practise it.

When about 16 years of age I happened to meet with a book, written by one Tryon, recommending a vegetable diet.[1] I determined to go into it. My brother, being yet unmarried,

[1] *Thomas* Tryon (1634–1703), "Pythagorean," author of "The Way to *Health, long* Life and Happiness or a Discourse of Temperance," second *edition, London*: 1691. — ED.

did not keep house, but boarded himself and his apprentices in another family. My refusing to eat flesh occasioned an inconveniency, and I was frequently chid for my singularity. I made myself acquainted with Tryon's manner of preparing some of his dishes, such as boiling potatoes or rice, making hasty pudding, and a few others, and then proposed to my brother, that if he would give me, weekly, half the money he paid for my board, I would board myself. He instantly agreed to it, and I presently found that I could save half what he paid me. This was an additional fund for buying books. But I had another advantage in it. My brother and the rest going from the printing-house to their meals, I remained there alone, and, despatching presently my light repast, which often was no more than a bisket or a slice of bread, a handful of raisins or a tart from the pastry-cook's, and a glass of water, had the rest of the time till their return for study, in which I made the greater progress, from that greater clearness of head and quicker apprehension which usually attend temperance in eating and drinking.

And now it was that, being on some occasion made asham'd of my ignorance in figures, which I had twice failed in learning when at school, I took Cocker's book of Arithmetick, and went through the whole by myself with great ease. I also read Seller's and Shermy's books of Navigation, and became acquainted with the little geometry they contain; but never proceeded far in that science. And I read about this time Locke *on Human Understanding*, and the *Art of Thinking*, by Messrs. du Port Royal.

While I was intent on improving my language, I met with an English grammar (I think it was Greenwood's), at the *end of which there* were two little sketches of the arts of

rhetoric and logic, the latter finishing with a specimen of a dispute in the Socratic method; and soon after I procur'd Xenophon's Memorable Things of Socrates, wherein there are many instances of the same method. I was charm'd with it, adopted it, dropt my abrupt contradiction and positive argumentation, and put on the humble inquirer and doubter. And being then, from reading Shaftesbury and Collins, become a real doubter in many points of our religious doctrine, I found this method safest for myself and very embarassing to those against whom I used it; therefore I took a delight in it, practis'd it continually, and grew very artful and expert in drawing people, even of superior knowledge, into concessions, the consequences of which they did not foresee, entangling them in difficulties out of which they could not extricate themselves, and so obtaining victories that neither myself nor my cause always deserved. I continu'd this method some few years, but gradually left it, retaining only the habit of expressing myself in terms of modest diffidence; never using, when I advanced anything that may possibly be disputed, the words *certainly*, *undoubtedly*, or any others that give the air of positiveness to an opinion; but rather say, I conceive or apprehend a thing to be so and so; it appears to me, or *I should think it so or so*, for such and such reasons; or *I imagine it to be so;* or *it is so, if I am not mistaken.* This habit, I believe, has been of great advantage to me when I have had occasion to inculcate my opinions, and persuade men into measures that I have been from time to time engag'd in promoting; and, as the chief ends of conversation are to *inform* or to be *informed, to please* or to *persuade*, I wish well-meaning, sensible men would not lessen their power of doing good by a

positive, assuming manner, that seldom fails to disgust, tends to create opposition, and to defeat everyone of those purposes for which speech was given to us, to wit, giving or receiving information or pleasure. For, if you would inform, a positive and dogmatical manner in advancing your sentiments may provoke contradiction and prevent a candid attention. If you wish information and improvement from the knowledge of others, and yet at the same time express yourself as firmly fix'd in your present opinions, modest, sensible men, who do not love disputation, will probably leave you undisturbed in the possession of your error. And by such a manner, you can seldom hope to recommend yourself in *pleasing* your hearers, or to persuade those whose concurrence you desire. Pope says, judiciously:

> "*Men should be taught as if you taught them not,*
> *And things unknown propos'd as things forgot;*"

farther recommending to us

> "To speak, tho' sure, with seeming diffidence."

And he might have coupled with this line that which he has coupled with another, I think, less properly,

> "For want of modesty is want of sense."

If you ask, Why less properly? I must repeat the lines,

> "Immodest words admit of no defense,
> For want of modesty is want of sense."

Now, is not *want of sense* (where a man is so unfortunate as to want it) some apology for his *want of modesty?* and would not the lines stand more justly thus?

> "Immodest words admit *but* this defense,
> That want of modesty is want of sense."

This, however, I should submit to better judgments.

My brother had, in 1720 or 1721, begun to print a newspaper. It was the second that appeared in America, and was called the New England Courant.[1] The only one before it was the Boston News-Letter. I remember his being dissuaded by some of his friends from the undertaking, as not likely to succeed, one newspaper being, in their judgment, enough for America. At this time (1771) there are not less than five-and-twenty. He went on, however, with the undertaking, and after having worked in composing the types and printing off the sheets, I was employed to carry the papers thro' the streets to the customers.

He had some ingenious men among his friends, who amus'd themselves by writing little pieces for this paper, which gain'd it credit and made it more in demand, and these gentlemen often visited us. Hearing their conversations, and their accounts of the approbation their papers were received with, I was excited to try my hand among them; but, being still a boy, and suspecting that my brother would object to printing anything of mine in his paper if he knew it to be mine, I contrived to disguise my hand, and, writing an anonymous paper, I put it in at night under the door of the printing-house. It was found in the morning, and communicated to his writing friends when they call'd in as usual.

[1] This was written from recollection, and it is not surprising, that, after the lapse of fifty years, the author's memory should have failed him in regard to a fact of small importance. The *New England Courant* was the *fourth* newspaper that appeared in America. The first number of the *Boston News-Letter* was published April 24, 1704. This was the first newspaper in America. The *Boston Gazette* commenced December 21, 1719; the *American Weekly Mercury*, at Philadelphia, December 22, 1719; the *New England Courant*, August 21, 1721. Dr. Franklin's error of memory probably originated in the circumstance of his brother having been the printer of the *Boston Gazette*, when it was first established. This was the second newspaper published in America. — S.

They read it, commented on it in my hearing, and I had the exquisite pleasure of finding it met with their approbation, and that, in their different guesses at the author, none were named but men of some character among us for learning and ingenuity. I suppose now that I was rather lucky in my judges, and that perhaps they were not really so very good ones as I then esteem'd them.

Encourag'd, however, by this, I wrote and convey'd in the same way to the press several more papers which were equally approv'd; and I kept my secret till my small fund of sense for such performances was pretty well exhausted, and then I discovered it, when I began to be considered a little more by my brother's acquaintance, and in a manner that did not quite please him, as he thought, probably with reason, that it tended to make me too vain. And, perhaps, this might be one occasion of the differences that we began to have about this time. Though a brother, he considered himself as my master, and me as his apprentice, and, accordingly, expected the same services from me as he would from another, while I thought he demean'd me too much in some he requir'd of me, who from a brother expected more indulgence. Our disputes were often brought before our father, and I fancy I was either generally in the right, or else a better pleader, because the judgment was generally in my favour. But my brother was passionate, and had often beaten me, which I took extreamly amiss; and, thinking my apprenticeship very tedious, I was continually wishing for some opportunity of shortening it, which at length offered in a manner unexpected.[1]

[1] I fancy his harsh and tyrannical treatment of me might be a means of impressing me with that aversion to arbitrary power that has stuck to me through *my whole life.*

One of the pieces in our newspaper on some political point, which I have now forgotten, gave offense to the Assembly. He was taken up, censur'd, and imprison'd for a month, by the speaker's warrant, I suppose, because he would not discover his author. I too was taken up and examin'd before the council; but, tho' I did not give them any satisfaction, they content'd themselves with admonishing me, and dismissed me, considering me, perhaps, as an apprentice, who was bound to keep his master's secrets.

During my brother's confinement, which I resented a good deal, notwithstanding our private differences, I had the management of the paper; and I made bold to give our rulers some rubs in it, which my brother took very kindly, while others began to consider me in an unfavourable light, as a young genius that had a turn for libelling and satyr. My brother's discharge was accompany'd with an order of the House (a very odd one), that "*James Franklin should no longer print the paper called the New England Courant.*"

There was a consultation held in our printing-house among his friends, what he should do in this case. Some proposed to evade the order by changing the name of the paper; but my brother, seeing inconveniences in that, it was finally concluded on as a better way, to let it be printed for the future under the name of BENJAMIN FRANKLIN; and to avoid the censure of the Assembly, that might fall on him as still printing it by his apprentice, the contrivance was that my old indenture should be return'd to me, with a full discharge on the back of it, to be shown on occasion, but to secure to him the benefit of my service, I was to sign new *indentures* for the remainder of the term, which were to be *kept private*. A very flimsy scheme it was, however, it

was immediately executed, and the paper went on accordingly, under my name for several months.

At length, a fresh difference arising between my brother and me, I took upon me to assert my freedom, presuming that he would not venture to produce the new indentures. It was not fair in me to take this advantage, and this I therefore reckon one of the first errata of my life; but the unfairness of it weighed little with me, when under the impressions of resentment for the blows his passion too often urged him to bestow upon me, though he was otherwise not an ill-natur'd man: perhaps I was too saucy and provoking.

When he found I would leave him, he took care to prevent my getting employment in any other printing-house of the town, by going round and speaking to every master, who accordingly refus'd to give me work. I then thought of going to New York, as the nearest place where there was a printer; and I was rather inclin'd to leave Boston when I reflected that I had already made myself a little obnoxious to the governing party, and, from the arbitrary proceedings of the Assembly in my brother's case, it was likely I might, if I stay'd, soon bring myself into scrapes; and farther, that my indiscrete disputations about religion began to make me pointed at with horror by good people as an infidel or atheist. I determin'd on the point, but my father now siding with my brother, I was sensible that, if I attempted to go openly, means would be used to prevent me. My friend Collins, therefore, undertook to manage a little for me. He agreed with the captain of a New York sloop for my passage, under the notion of my being a young acquaintance of his, that had got a naughty girl with child, whose friends would compel me *to marry her,* and therefore I could not appear or

come away publicly. So I sold some of my books to raise a little money, was taken on board privately, and as we had a fair wind, in three days I found myself in New York, near 300 miles from home, a boy of but 17, without the least recommendation to, or knowledge of any person in the place, and with very little money in my pocket.

My inclinations for the sea were by this time worne out, or I might now have gratify'd them. But, having a trade, and supposing myself a pretty good workman, I offer'd my service to the printer in the place, old Mr. William Bradford,[1] who had been the first printer in Pennsylvania, but removed from thence upon the quarrel of George Keith. He could give me no employment, having little to do, and help enough already; but says he, "My son at Philadelphia has lately lost his principal hand, Aquila Rose, by death; if you go thither, I believe he may employ you." Philadelphia was 100 miles further; I set out, however, in a boat for Amboy, leaving my chest and things to follow me round by sea.

In crossing the bay, we met with a squall that tore our rotten sails to pieces, prevented our getting into the Kill, and drove us upon Long Island. In our way, a drunken Dutchman, who was a passenger too, fell overboard; when he was sinking, I reached through the water to his shock pate, and drew him up, so that we got him in again. His ducking sobered him a little, and he went to sleep, taking first out of his pocket a book, which he desir'd I would dry for him. It

[1] William Bradford, born in Leicester, England, in 1658; died in New York, May 23, 1752. In 1685 he set up his printing-press in Philadelphia, the third one in the Colonies, and the first one south of New England. He sided with Keith in his quarrel with the authorities and printed his "Appeal to the *People*." He was arrested for seditious libel and his press and publications were confiscated. He removed to New York in 1693. — Ed.

proved to be my old favorite author, Bunyan's Pilgrim's Progress, in Dutch, finely printed on good paper, with copper cuts, a dress better than I had ever seen it wear in its own language. I have since found that it has been translated into most of the languages of Europe, and suppose it has been more generally read than any other book, except perhaps the Bible. Honest John was the first that I know of who mix'd narration and dialogue; a method of writing very engaging to the reader, who in the most interesting parts finds himself, as it were, brought into the company and present at the discourse. De Foe in his Cruso, his Moll Flanders, Religious Courtship, Family Instructor, and other pieces, has imitated it with success; and Richardson has done the same in his Pamela, etc.

When we drew near the island, we found it was at a place where there could be no landing, there being a great surff on the stony beach. So we dropt anchor, and swung round towards the shore. Some people came down to the water edge and hallow'd to us, as we did to them; but the wind was so high, and the surff so loud, that we could not hear so as to understand each other. There were canoes on the shore, and we made signs, and hallow'd that they should fetch us; but they either did not understand us, or thought it impracticable, so they went away, and night coming on, we had no remedy but to wait till the wind should abate; and, in the mean time, the boatman and I concluded to sleep, if we could; and so crowded into the scuttle, with the Dutchman, who was still wet, and the spray beating over the head of our boat, leak'd thro' to us, so that we were soon almost as wet as he. In this manner we lay all night, with very little rest; but, the *wind abating the* next day, we made a shift to reach

Amboy before night, having been thirty hours on the water, without victuals, or any drink but a bottle of filthy rum, and the water we sail'd on being salt.

In the evening I found myself very feverish, and went in to bed; but, having read somewhere that cold water drank plentifully was good for a fever, I follow'd the prescription, sweat plentiful most of the night, my fever left me, and in the morning, crossing the ferry, I proceeded on my journey on foot, having fifty miles to Burlington, where I was told I should find boats that would carry me the rest of the way to Philadelphia.

It rained very hard all the day; I was thoroughly soak'd, and by noon a good deal tired; so I stopt at a poor inn, where I staid all night, beginning now to wish that I had never left home. I cut so miserable a figure, too, that I found, by the questions ask'd me, I was suspected to be some runaway servant, and in danger of being taken up on that suspicion. However, I proceeded the next day, and got in the evening to an inn, within eight or ten miles of Burlington, kept by one Dr. Brown. He entered into conversation with me while I took some refreshment, and, finding I had read a little, became very sociable and friendly. Our acquaintance continu'd as long as he liv'd. He had been, I imagine, an itinerant doctor, for there was no town in England, or country in Europe, of which he could not give a very particular account. He had some letters, and was ingenious, but much of an unbeliever, and wickedly undertook, some years after, to travestie the Bible in doggrel verse, as Cotton had done Virgil.[1] By this means he set

[1] *Charles* Cotton (1630–1687), "Scarronides, or the First Book of Virgil *Travestie*," *1664*; reprinted with a travesty of the fourth book, in 1670.—Ed.

many of the facts in a very ridiculous light, and might have hurt weak minds if his work had been published; but it never was.

At his house I lay that night, and the next morning reach'd Burlington, but had the mortification to find that the regular boats were gone a little before my coming, and no other expected to go before Tuesday, this being Saturday; wherefore I returned to an old woman in the town, of whom I had bought gingerbread to eat on the water, and ask'd her advice. She invited me to lodge at her house till a passage by water should offer; and being tired with my foot travelling, I accepted the invitation. She understanding I was a printer, would have had me stay at that town and follow my business, being ignorant of the stock necessary to begin with. She was very hospitable, gave me a dinner of ox-cheek with great good will, accepting only of a pot of ale in return; and I thought myself fixed till Tuesday should come. However, walking in the evening by the side of the river, a boat came by, which I found was going towards Philadelphia, with several people in her. They took me in, and, as there was no wind, we row'd all the way; and about midnight, not having yet seen the city, some of the company were confident we must have passed it, and would row no farther; the others knew not where we were; so we put toward the shore, got into a creek, landed near an old fence, with the rails of which we made a fire, the night being cold, in October, and there we remained till daylight. Then one of the company knew the place to be Cooper's Creek, a little above Philadelphia, which we saw as soon as we got out of the creek, and arriv'd there about eight or nine o'clock on the Sunday morning, *and landed at the* Market-street wharf.

I have been the more particular in this description of my journey, and shall be so of my first entry into that city, that you may in your mind compare such unlikely beginnings with the figure I have since made there. I was in my working dress, my best clothes being to come round by sea. I was dirty from my journey; my pockets were stuff'd out with shirts and stockings, and I knew no soul nor where to look for lodging. I was fatigued with travelling, rowing, and want of rest, I was very hungry; and my whole stock of cash consisted of a Dutch dollar, and about a shilling in copper. The latter I gave the people of the boat for my passage, who at first refus'd it, on account of my rowing; but I insisted on their taking it. A man being sometimes more generous when he has but a little money than when he has plenty, perhaps thro' fear of being thought to have but little.

Then I walked up the street, gazing about till near the market-house I met a boy with bread. I had made many a meal on bread, and, inquiring where he got it, I went immediately to the baker's he directed me to, in Second-street, and ask'd for bisket, intending such as we had in Boston; but they, it seems, were not made in Philadelphia. Then I asked for a three-penny loaf, and was told they had none such. So not considering or knowing the difference of money, and the greater cheapness nor the names of his bread, I bad him give me three-penny worth of any sort. He gave me, accordingly, three great puffy rolls. I was surpriz'd at the quantity, but took it, and, having no room in my pockets, walk'd off with a roll under each arm, and eating the other. Thus I went up Market-street as far as Fourth-street, passing by the door of Mr. Read, my future wife's father, when

she, standing at the door, saw me, and thought I made, as I certainly did, a most awkward, ridiculous appearance. Then I turned and went down Chestnut-street and part of Walnut-street, eating my roll all the way, and, coming round, found myself again at Market-street wharf, near the boat I came in, to which I went for a draught of the river water; and, being filled with one of my rolls, gave the other two to a woman and her child that came down the river in the boat with us, and were waiting to go farther.

Thus refreshed, I walked again up the street, which by this time had many clean-dressed people in it, who were all walking the same way. I joined them, and thereby was led into the great meeting-house of the Quakers near the market. I sat down among them, and, after looking round awhile and hearing nothing said, being very drowsy thro' labour and want of rest the preceding night, I fell fast asleep, and continu'd so till the meeting broke up, when one was kind enough to rouse me. This was, therefore, the first house I was in, or slept in, in Philadelphia.

Walking down again toward the river, and, looking in the faces of people, I met a young Quaker man, whose countenance I lik'd, and, accosting him, requested he would tell me where a stranger could get lodging. We were then near the sign of the Three Mariners. "Here," says he, "is one place that entertains strangers, but it is not a reputable house; if thee wilt walk with me, I'll show thee a better." He brought me to the Crooked Billet in Water-street. Here I got a dinner; and, while I was eating it, several sly questions were asked me, as it seemed to be suspected from my youth and appearance, that I might be some runaway.

After dinner, my sleepiness return'd, and being shown to

a bed, I lay down without undressing, and slept till six in the evening, was call'd to supper, went to bed again very early, and slept soundly till next morning. Then I made myself as tidy as I could, and went to Andrew Bradford the printer's. I found in the shop the old man his father, whom I had seen at New York, and who, travelling on horseback, had got to Philadelphia before me. He introduc'd me to his son, who receiv'd me civilly, gave me a breakfast, but told me he did not at present want a hand, being lately suppli'd with one; but there was another printer in town, lately set up, one Keimer, who, perhaps, might employ me; if not, I should be welcome to lodge at his house, and he would give me a little work to do now and then till fuller business should offer.

The old gentleman said he would go with me to the new printer; and when we found him, "Neighbour," says Bradford, "I have brought to see you a young man of your business; perhaps you may want such a one." He ask'd me a few questions, put a composing stick in my hand to see how I work'd, and then said he would employ me soon, though he had just then nothing for me to do; and, taking old Bradford, whom he had never seen before, to be one of the town's people that had a good will for him, enter'd into a conversation on his present undertaking and prospects; while Bradford, not discovering that he was the other printer's father, on Keimer's saying he expected soon to get the greatest part of the business into his own hands, drew him on by artful questions, and starting little doubts, to explain all his views, what interest he reli'd on, and in what manner he *intended* to proceed. I, who stood by and heard all, saw *immediately* that one of them was a crafty old sophister,

and the other a mere novice. Bradford left me with Keimer, who was greatly surpris'd when I told him who the old man was.

Keimer's printing-house, I found, consisted of an old shatter'd press, and one small, worn-out font of English, which he was then using himself, composing an Elegy on Aquila Rose, before mentioned, an ingenious young man, of excellent character, much respected in the town, clerk of the Assembly, and a pretty poet. Keimer made verses too, but very indifferently. He could not be said to write them, for his manner was to compose them in the types directly out of his head. So there being no copy, but one pair of cases, and the Elegy likely to require all the letter, no one could help him. I endeavour'd to put his press (which he had not yet us'd, and of which he understood nothing) into order fit to be work'd with; and, promising to come and print off his Elegy as soon as he should have got it ready, I return'd to Bradford's, who gave me a little job to do for the present, and there I lodged and dieted. A few days after, Keimer sent for me to print off the Elegy. And now he had got another pair of cases, and a pamphlet to reprint, on which he set me to work.

These two printers I found poorly qualified for their business. Bradford had not been bred to it, and was very illiterate; and Keimer, tho' something of a scholar, was a mere compositor, knowing nothing of presswork. He had been one of the French prophets, and could act their enthusiastic agitations.[1] At this time he did not profess any particular religion, but something of all on occasion; was

[1] "M. Laboulaye presumes Keimer was one of the Camisards or *Protestants of the Cevennes so persecuted by Louis XIV.*" —B.

very ignorant of the world, and had, as I afterward found, a good deal of the knave in his composition. He did not like my lodging at Bradford's while I work'd with him. He had a house, indeed, but without furniture, so he could not lodge me; but he got me a lodging at Mr. Read's before mentioned, who was the owner of his house; and, my chest and clothes being come by this time, I made rather a more respectable appearance in the eyes of Miss Read than I had done when she first happen'd to see me eating my roll in the street.

I began now to have some acquaintance among the young people of the town, that were lovers of reading, with whom I spent my evenings very pleasantly; and gaining money by my industry and frugality, I lived very agreeably, forgetting Boston as much as I could, and not desiring that any there should know where I resided, except my friend Collins, who was in my secret, and kept it when I wrote to him. At length, an incident happened that sent me back again much sooner than I had intended. I had a brother-in-law, Robert Holmes, master of a sloop that traded between Boston and Delaware. He being at Newcastle, forty miles below Philadelphia, heard there of me, and wrote me a letter mentioning the concern of my friends in Boston at my abrupt departure, assuring me of their good will to me, and that every thing would be accommodated to my mind if I would return, to which he exhorted me very earnestly. I wrote an answer to his letter, thank'd him for his advice, but stated my reasons for quitting Boston fully and in such a light as to convince him I was not so wrong as he had apprehended.

Sir William Keith, governor of the province, was then at

Newcastle, and Captain Holmes, happening to be in company with him when my letter came to hand, spoke to him of me, and show'd him the letter. The governor read it, and seem'd surpris'd when he was told of my age. He said I appear'd a young man of promising parts, and therefore should be encouraged; the printers at Philadelphia were wretched ones; and, if I would set up there, he made no doubt I should succeed; for his part, he would procure me the public business, and do me every other service in his power. This my brother-in-law afterwards told me in Boston, but I knew as yet nothing of it; when, one day, Keimer and I being at work together near the window, we saw the governor and another gentleman (which proved to be Colonel French, of Newcastle), finely dress'd, come directly across the street to our house, and heard them at the door.

Keimer ran down immediately, thinking it a visit to him; but the governor inquir'd for me, came up, and with a condescension and politeness I had been quite unus'd to, made me many compliments, desired to be acquainted with me, blam'd me kindly for not having made myself known to him when I first came to the place, and would have me away with him to the tavern, where he was going with Colonel French to taste, as he said, some excellent Madeira. I was not a little surprised, and Keimer star'd like a pig poison'd. I went, however, with the governor and Colonel French to a tavern, at the corner of Third-street, and over the Madeira he propos'd my setting up my business, laid before me the probabilities of success, and both he and Colonel French assur'd me I should have their interest and influence in procuring the public business of both governments. On my *doubting whether my father* would assist me in it, Sir William

said he would give me a letter to him, in which he would state the advantages, and he did not doubt of prevailing with him. So it was concluded I should return to Boston in the first vessel, with the governor's letter recommending me to my father. In the mean time the intention was to be kept a secret, and I went on working with Keimer as usual, the governor sending for me now and then to dine with him, a very great honour I thought it, and conversing with me in the most affable, familiar, and friendly manner imaginable.

About the end of April, 1724, a little vessel offer'd for Boston. I took leave of Keimer as going to see my friends. The governor gave me an ample letter, saying many flattering things of me to my father, and strongly recommending the project of my setting up at Philadelphia as a thing that must make my fortune. We struck on a shoal in going down the bay, and sprung a leak; we had a blustering time at sea, and were oblig'd to pump almost continually, at which I took my turn. We arriv'd safe, however, at Boston in about a fortnight. I had been absent seven months, and my friends had heard nothing of me; for my br. Holmes was not yet return'd, and had not written about me. My unexpected appearance surpriz'd the family; all were, however, very glad to see me, and made me welcome, except my brother. I went to see him at his printing-house. I was better dress'd than ever while in his service, having a genteel new suit from head to foot, a watch, and my pockets lin'd with near five pounds sterling in silver. He receiv'd me not very frankly, look'd me all over, and turn'd to his work again.

The journeymen were inquisitive where I had been, what *sort of* a country it was, and how I like'd it. I prais'd it

much, and the happy life I led in it, expressing strongly my intention of returning to it; and, one of them asking what kind of money we had there, I produc'd a handful of silver, and spread it before them, which was a kind of raree-show they had not been us'd to, paper being the money of Boston. Then I took an opportunity of letting them see my watch; and, lastly (my brother still grum and sullen), I gave them a piece of eight to drink, and took my leave. This visit of mine offended him extreamly; for, when my mother some time after spoke to him of a reconciliation, and of her wishes to see us on good terms together, and that we might live for the future as brothers, he said I had insulted him in such a manner before his people that he could never forget or forgive it. In this, however, he was mistaken.

My father received the governor's letter with some apparent surprise, but said little of it to me for some days, when Capt. Holmes returning he showed it to him, ask'd him if he knew Keith, and what kind of man he was; adding his opinion that he must be of small discretion to think of setting a boy up in business who wanted yet three years of being at man's estate. Holmes said what he could in favour of the project, but my father was clear in the impropriety of it, and at last, gave a flat denial to it. Then he wrote a civil letter to Sir William, thanking him for the patronage he had so kindly offered me, but declining to assist me as yet in setting up, I being, in his opinion, too young to be trusted with the management of a business so important, and for which the preparation must be so expensive.

My friend and companion Collins, who was a clerk in the post-office, pleas'd with the account I gave him of my new *country, determined to go* thither also; and, while I waited

for my father's determination, he set out before me by land to Rhode Island, leaving his books, which were a pretty collection of mathematicks and natural philosophy, to come with mine and me to New York, where he propos'd to wait for me.

My father, tho' he did not approve Sir William's proposition, was yet pleas'd that I had been able to obtain so advantageous a character from a person of such note where I had resided, and that I had been so industrious and careful as to equip myself so handsomely in so short a time; therefore, seeing no prospect of an accommodation between my brother and me, he gave his consent to my returning again to Philadelphia, advis'd me to behave respectfully to the people there, endeavour to obtain the general esteem, and avoid lampooning and libeling, to which he thought I had too much inclination; telling me, that by steady industry and a prudent parsimony I might save enough by the time I was one-and-twenty to set me up; and that, if I came near the matter, he would help me out with the rest. This was all I could obtain, except some small gifts as tokens of his and my mother's love, when I embark'd again for New York, now with their approbation and their blessing.

The sloop putting in at Newport, Rhode Island, I visited my brother John, who had been married and settled there some years. He received me very affectionately, for he always lov'd me. A friend of his, one Vernon, having some money due to him in Pensilvania, about thirty-five pounds currency, desired I would receive it for him, and keep it till I had his directions what to remit it in. Accordingly, *he gave* me an order. This afterwards occasion'd me a *good deal* of uneasiness.

At Newport we took in a number of passengers for New York, among which were two young women, companions, and a grave, sensible, matronlike Quaker woman, with her attendants. I had shown an obliging readiness to do her some little services, which impress'd her I suppose with a degree of good will toward me; therefore, when she saw a daily growing familiarity between me and the two young women, which they appear'd to encourage, she took me aside, and said, "Young man, I am concern'd for thee, as thou has no friend with thee, and seems not to know much of the world, or of the snares youth is expos'd to; depend upon it, those are very bad women; I can see it in all their actions; and if thee art not upon thy guard, they will draw thee into some danger; they are strangers to thee, and I advise thee, in a friendly concern for thy welfare, to have no acquaintance with them." As I seem'd at first not to think so ill of them as she did, she mentioned some things she had observ'd and heard that had escap'd my notice, but now convinc'd me she was right. I thank'd her for her kind advice, and promis'd to follow it. When we arriv'd at New York, they told me where they liv'd, and invited me to come and see them; but I avoided it, and it was well I did; for the next day the captain miss'd a silver spoon and some other things, that had been taken out of his cabbin, and, knowing that these were a couple of strumpets, he got a warrant to search their lodgings, found the stolen goods, and had the thieves punish'd. So, tho' we had escap'd a sunken rock, which we scrap'd upon in the passage, I thought this escape of rather more importance to me.

At New York I found my friend Collins, who had arriv'd there *some time before* me. We had been intimate from

children, and had read the same books together; but he had the advantage of more time for reading and studying, and a wonderful genius for mathematical learning, in which he far outstript me. While I liv'd in Boston, most of my hours of leisure for conversation were spent with him, and he continu'd a sober as well as an industrious lad; was much respected for his learning by several of the clergy and other gentlemen, and seemed to promise making a good figure in life. But, during my absence, he had acquir'd a habit of sotting with brandy; and I found by his own account, and what I heard from others, that he had been drunk every day since his arrival at New York, and behav'd very oddly. He had gam'd, too, and lost his money, so that I was oblig'd to discharge his lodgings, and defray his expenses to and at Philadelphia, which prov'd extremely inconvenient to me.

The then governor of New York, Burnet[1] (son of Bishop Burnet), hearing from the captain that a young man, one of his passengers, had a great many books, desir'd he would bring me to see him. I waited upon him accordingly, and should have taken Collins with me but that he was not sober. The gov'r. treated me with great civility, show'd me his library, which was a very large one, and we had a good deal of conversation about books and authors. This was the second governor who had done me the honour to take notice of me; which, to a poor boy like me, was very pleasing.

We proceeded to Philadelphia. I received on the way Vernon's money, without which we could hardly have finish'd

[1] William Burnet, born at The Hague, March, 1688; died in Boston, September 19, 1729. He was appointed governor of New York and New Jersey, *April 19, 1720.* He was transferred to Massachusetts in July, 1728. See *Whitehead's* "Contributions to East Jersey History," pp. 156–168.—Ed.

our journey. Collins wished to be employ'd in some counting-house; but, whether they discover'd his dramming by his breath, or by his behaviour, tho' he had some recommendations, he met with no success in any application, and continu'd lodging and boarding at the same house with me, and at my expense. Knowing I had that money of Vernon's, he was continually borrowing of me, still promising repayment as soon as he should be in business. At length he had got so much of it that I was distress'd to think what I should do in case of being call'd on to remit it.

His drinking continu'd, about which we sometimes quarrell'd; for, when a little intoxicated, he was very fractious. Once, in a boat on the Delaware with some other young men, he refused to row in his turn. "I will be row'd home," says he. "We will not row you," says I. "You must, or stay all night on the water," says he, "just as you please." The others said, "Let us row; what signifies it?" But, my mind being soured with his other conduct, I continu'd to refuse. So he swore he would make me row, or throw me overboard; and coming along, stepping on the thwarts, toward me, when he came up and struck at me, I clapped my hand under his crutch, and, rising, pitched him headforemost into the river. I knew he was a good swimmer, and so was under little concern about him; but before he could get round to lay hold of the boat, we had with a few strokes pull'd her out of his reach; and ever when he drew near the boat, we ask'd if he would row striking a few strokes to slide her away from him. He was ready to die with vexation, and obstinately would not promise to row. However, seeing him at last beginning to tire, we lifted him in and *brought him home dripping* wet in the evening. We hardly

exchang'd a civil word afterwards, and a West India captain, who had a commission to procure a tutor for the sons of a gentleman at Barbadoes, happening to meet with him, agreed to carry him thither. He left me then, promising to remit me the first money he should receive in order to discharge the debt; but I never heard of him after.

The breaking into this money of Vernon's was one of the first great errata of my life; and this affair show'd that my father was not much out in his judgment when he suppos'd me too young to manage business of importance. But Sir William, on reading his letter, said he was too prudent. There was great difference in persons; and discretion did not always accompany years, nor was youth always without it. "And since he will not set you up," says he, "I will do it myself. Give me an inventory of the things necessary to be had from England, and I will send for them. You shall repay me when you are able; I am resolv'd to have a good printer here, and I am sure you must succeed." This was spoken with such an appearance of cordiality, that I had not the least doubt of his meaning what he said. I had hitherto kept the proposition of my setting up, a secret in Philadelphia, and I still kept it. Had it been known that I depended on the governor, probably some friend, that knew him better, would have advis'd me not to rely on him, as I afterwards heard it as his known character to be liberal of promises which he never meant to keep. Yet, unsolicited as he was by me, how could I think his generous offers insincere? I believ'd him one of the best men in the world.

I presented him an inventory of a little print'g-house, *amounting* by my computation to about one hundred pounds *sterling*. He lik'd it, but ask'd me if my being on the spot

in England to chuse the types, and see that every thing was good of the kind, might not be of some advantage. "Then," says he, "when there, you may make acquaintances, and establish correspondences in the bookselling and stationery way." I agreed that this might be advantageous. "Then," says he, "get yourself ready to go with Annis;" which was the annual ship, and the only one at that time usually passing between London and Philadelphia. But it would be some months before Annis sail'd, so I continu'd working with Keimer, fretting about the money Collins had got from me, and in daily apprehensions of being call'd upon by Vernon, which, however, did not happen for some years after.

I believe I have omitted mentioning that, in my first voyage from Boston, being becalm'd off Block Island, our people set about catching cod, and hauled up a great many. Hitherto I had stuck to my resolution of not eating animal food, and on this occasion I consider'd, with my master Tryon, the taking every fish as a kind of unprovoked murder, since none of them had, or ever could do us any injury that might justify the slaughter. All this seemed very reasonable. But I had formerly been a great lover of fish, and, when this came hot out of the frying-pan, it smelt admirably well. I balanc'd some time between principle and inclination, till I recollected that, when the fish were opened, I saw smaller fish taken out of their stomachs; then thought I, "If you eat one another, I don't see why we mayn't eat you." So I din'd upon cod very heartily, and continued to eat with other people, returning only now and then occasionally to a vegetable diet. So convenient a thing it is to be a *reasonable creature*, since it enables one to find or make a reason for every thing one has a *mind to do.*

Keimer and I liv'd on a pretty good familiar footing, and agreed tolerably well, for he suspected nothing of my setting up. He retained a great deal of his old enthusiasms and lov'd argumentation. We therefore had many disputations. I used to work him so with my Socratic method, and had trepann'd him so often by questions apparently so distant from any point we had in hand, and yet by degrees lead to the point, and brought him into difficulties and contradictions, that at last he grew ridiculously cautious, and would hardly answer me the most common question, without asking first, "*What do you intend to infer from that?*" However, it gave him so high an opinion of my abilities in the confuting way, that he seriously proposed my being his colleague in a project he had of setting up a new sect. He was to preach the doctrines, and I was to confound all opponents. When he came to explain with me upon the doctrines, I found several conundrums which I objected to, unless I might have my way a little too, and introduce some of mine.

Keimer wore his beard at full length, because somewhere in the Mosaic law it is said, "*Thou shalt not mar the corners of thy beard.*" He likewise kept the Seventh day, Sabbath; and these two points were essentials with him. I dislik'd both; but agreed to admit them upon condition of his adopting the doctrine of using no animal food. "I doubt," said he, "my constitution will not bear that." I assur'd him it would, and that he would be the better for it. He was usually a great glutton, and I promised myself some diversion in half starving him. He agreed to try the practice, if I would keep him company. I did so, and we held it for three months. We had our victuals dress'd, and brought to us regularly by a woman in the neighborhood, who had from me a list of

forty dishes, to be prepar'd for us at different times, in all which there was neither fish, flesh, nor fowl, and the whim suited me the better at this time from the cheapness of it, not costing us above eighteenpence sterling each per week. I have since kept several Lents most strictly, leaving the common diet for that, and that for the common, abruptly, without the least inconvenience, so that I think there is little in the advice of making those changes by easy gradations. I went on pleasantly, but poor Keimer suffered grievously, tired of the project, long'd for the flesh-pots of Egypt, and order'd a roast pig. He invited me and two women friends to dine with him; but, it being brought too soon upon table, he could not resist the temptation, and ate the whole before we came.

I had made some courtship during this time to Miss Read. I had a great respect and affection for her, and had some reason to believe she had the same for me; but, as I was about to take a long voyage, and we were both very young, only a little above eighteen, it was thought most prudent by her mother to prevent our going too far at present, as a marriage, if it was to take place, would be more convenient after my return, when I should be, as I expected, set up in my business. Perhaps, too, she thought my expectations not so well founded as I imagined them to be.

My chief acquaintances at this time were Charles Osborne, Joseph Watson, and James Ralph, all lovers of reading. The two first were clerks to an eminent scrivener or conveyancer in the town, Charles Brogden; the other was clerk to a merchant. Watson was a pious, sensible young man, of great integrity; the others rather more lax in their principles of *religion, particularly* Ralph, who, as well as Collins, had

been unsettled by me, for which they both made me suffer. Osborne was sensible, candid, frank; sincere and affectionate to his friends; but, in literary matters, too fond of criticising. Ralph was ingenious, genteel in his manners, and extremely eloquent; I think I never knew a prettier talker. Both of them great admirers of poetry, and began to try their hands in little pieces. Many pleasant walks we four had together on Sundays into the woods, near Schuylkill, where we read to one another, and conferr'd on what we read.

Ralph was inclin'd to pursue the study of poetry, not doubting but he might become eminent in it, and make his fortune by it, alleging that the best poets must, when they first began to write, make as many faults as he did. Osborne dissuaded him, assur'd him he had no genius for poetry, and advis'd him to think of nothing beyond the business he was bred to; that, in the mercantile way, tho' he had no stock, he might, by his diligence and punctuality, recommend himself to employment as a factor, and in time acquire wherewith to trade on his own account. I approv'd the amusing one's self with poetry now and then, so far as to improve one's language, but no farther.

On this it was propos'd that we should each of us, at our next meeting, produce a piece of our own composing, in order to improve by our mutual observations, criticisms, and corrections. As language and expression were what we had in view, we excluded all considerations of invention by agreeing that the task should be a version of the eighteenth Psalm, which describes the descent of a Deity. When the time of our meeting drew nigh, Ralph called on me first, and let *me know* his piece was ready. I told him I had been busy, *and, having* little inclination, had done nothing. He then

show'd me his piece for my opinion, and I much approv'd it, as it appear'd to me to have great merit. "Now," says he, "Osborne never will allow the least merit in any thing of mine, but makes 1000 criticisms out of mere envy. He is not so jealous of you; I wish, therefore, you would take this piece, and produce it as yours; I will pretend not to have had time, and so produce nothing. We shall then see what he will say to it." It was agreed, and I immediately transcrib'd it, that it might appear in my own hand.

We met; Watson's performance was read; there were some beauties in it, but many defects. Osborne's was read; it was much better; Ralph did it justice; remarked some faults, but applauded the beauties. He himself had nothing to produce. I was backward; seemed desirous of being excused; had not had sufficient time to correct, etc.; but no excuse could be admitted; produce I must. It was read and repeated; Watson and Osborne gave up the contest, and join'd in applauding it. Ralph only made some criticisms, and propos'd some amendments; but I defended my text. Osborne was against Ralph, and told him he was no better a critic than poet, so he dropt the argument. As they two went home together, Osborne expressed himself still more strongly in favour of what he thought my production; having restrain'd himself before, as he said, lest I should think it flattery. "But who would have imagin'd," said he, "that Franklin had been capable of such a performance; such painting, such force, such fire! He has even improv'd the original. In his common conversation he seems to have no choice of words; he hesitates and blunders; and yet, good *God! how he writes!*" When we next met, Ralph

discovered the trick we had plaid him, and Osborne was a little laught at.

This transaction fixed Ralph in his resolution of becoming a poet. I did all I could to dissuade him from it, but he continued scribbling verses till *Pope* cured him.[1] He became, however, a pretty good prose writer. More of him hereafter. But, as I may not have occasion again to mention the other two, I shall just remark here, that Watson died in my arms a few years after, much lamented, being the best of our set. Osborne went to the West Indies, where he became an eminent lawyer and made money, but died young. He and I had made a serious agreement, that the one who happen'd first to die should, if possible, make a friendly visit to the other, and acquaint him how he found things in that separate state. But he never fulfill'd his promise.

[1] James Ralph (1705?–1762), a luckless poetaster and diligent pamphleteer put by Pope into the *Dunciad*: —

> "Silence, ye wolves! while Ralph to Cynthia howls,
> And makes night hideous — answer him, ye owls."
> — Book III., line 165.

"James Ralph, a name inserted after the first editions, not known till he writ a swearing-piece called *Sawney*, very abusive of Dr. Swift, Mr. Gay, and myself. These lines allude to a thing of his entitled *Night*, a poem. This low writer attended his own works with panegyrics in the journals, and once in particular praised himself highly above Mr. Addison, in wretched remarks upon that author's account of English poets, printed in a London journal, September, 1728. He was wholly illiterate and knew no language, not even French. Being advised to read the rules of dramatic poetry before he began a play, he smiled and replied 'Shakspeare writ without rules.' He ended at last in the common sink of all such writers, a political newspaper, to which he was recommended by his friend Arnal, and received a small pittance for pay; and being detected in writing on both sides on one and the same day, he publicly justified the morality of his conduct."

In the first book of the *Dunciad*, line 215, there is another allusion to *Ralph*: —

> "And see! the very Gazetteers give o'er,
> Ev'n Ralph repents, and Henley writes no more." — Ed.

The governor, seeming to like my company, had me frequently to his house, and his setting me up was always mention'd as a fixed thing. I was to take with me letters recommendatory to a number of his friends, besides the letter of credit to furnish me with the necessary money for purchasing the press and types, paper, etc. For these letters I was appointed to call at different times, when they were to be ready; but a future time was still named. Thus he went on till the ship, whose departure too had been several times postponed, was on the point of sailing. Then, when I call'd to take my leave and receive the letters, his secretary, Dr. Bard, came out to me, and said the governor was extremely busy in writing, but would be down at Newcastle before the ship, and there the letters would be delivered to me.

Ralph, though married, and having one child, had determined to accompany me in this voyage. It was thought he intended to establish a correspondence, and obtain goods to sell on commission; but I found afterwards, that, thro' some discontent with his wife's relations, he purposed to leave her on their hands, and never return again. Having taken leave of my friends, and interchang'd some promises with Miss Read, I left Philadelphia in the ship, which anchor'd at Newcastle. The governor was there; but when I went to his lodging, the secretary came to me from him with the civillest message in the world, that he could not then see me, being engaged in business of the utmost importance, but should send the letters to me on board, wished me heartily a good voyage and a speedy return, etc. I returned on board a little puzzled, but still not doubting.

Mr. Andrew Hamilton, a famous lawyer of Philadelphia, had taken passage in the same ship for himself and son, and

with Mr. Denham, a Quaker merchant, and Messrs. Onion and Russel, masters of an iron work in Maryland,[1] had engag'd the great cabin; so that Ralph and I were forced to take up with a berth in the steerage, and none on board knowing us, were considered as ordinary persons. But Mr. Hamilton and his son (it was James, since governor) return'd from Newcastle to Philadelphia, the father being recall'd by a great fee to plead for a seized ship; and, just before we sail'd, Colonel French coming on board, and showing me great respect, I was more taken notice of, and, with my friend Ralph, invited by the other gentlemen to come into the cabin, there being now room. Accordingly, we remov'd thither.

Understanding that Colonel French had brought on board the governor's despatches, I ask'd the captain for those letters that were to be under my care. He said all were put into the bag together and he could not then come at them; but, before we landed in England, I should have an opportunity of picking them out; so I was satisfied for the present, and we proceeded on our voyage. We had a sociable company in the cabin, and lived uncommonly well, having the addition of all Mr. Hamilton's stores, who had laid in plentifully. In this passage Mr. Denham contracted a friendship for me that continued during his life. The voyage was otherwise not a pleasant one, as we had a great deal of bad weather.

When we came into the Channel, the captain kept his word with me, and gave me an opportunity of examining the bag for the governor's letters. I found none upon which my *name* was put as under my care. I picked out six or seven,

[1] Principio Iron Works.—Ed.

that, by the handwriting, I thought might be the promised letters, especially as one of them was directed to Basket, the king's printer, and another to some stationer. We arriv'd in London the 24th of December, 1724. I waited upon the stationer, who came first in my way, delivering the letter as from Governor Keith. "I don't know such a person," says he; but, opening the letter, "O! this is from Riddlesden. I have lately found him to be a compleat rascal, and I will have nothing to do with him, nor receive any letters from him." So, putting the letter into my hand, he turn'd on his heel and left me to serve some customer. I was surprized to find these were not the governor's letters; and, after recollecting and comparing circumstances, I began to doubt his sincerity. I found my friend Denham, and opened the whole affair to him. He let me into Keith's character; told me there was not the least probability that he had written any letters for me; that no one, who knew him, had the smallest dependence on him; and he laught at the notion of the governor's giving me a letter of credit, having, as he said, no credit to give. On my expressing some concern about what I should do, he advised me to endeavour getting some employment in the way of my business. "Among the printers here," said he, "you will improve yourself, and when you return to America, you will set up to greater advantage."

We both of us happen'd to know, as well as the stationer, that Riddlesden, the attorney, was a very knave. He had half ruin'd Miss Read's father by persuading him to be bound for him. By this letter it appear'd there was a secret scheme on foot to the prejudice of Hamilton (suppos'd to be *then coming over with* us); and that Keith was concerned

in it with Riddlesden. Denham, who was a friend of Hamilton's thought he ought to be acquainted with it; so, when he arriv'd in England, which was soon after, partly from resentment and ill-will to Keith and Riddlesden, and partly from good-will to him, I waited on him, and gave him the letter. He thank'd me cordially, the information being of importance to him; and from that time he became my friend, greatly to my advantage afterwards on many occasions.

But what shall we think of a governor's playing such pitiful tricks, and imposing so grossly on a poor ignorant boy! It was a habit he had acquired. He wish'd to please everybody; and, having little to give, he gave expectations. He was otherwise an ingenious, sensible man, a pretty good writer, and a good governor for the people, tho' not for his constituents, the proprietaries, whose instructions he sometimes disregarded. Several of our best laws were of his planning and passed during his administration.

Ralph and I were inseparable companions. We took lodgings together in Little Britain at three shillings and sixpence a week — as much as we could then afford. He found some relations, but they were poor, and unable to assist him. He now let me know his intentions of remaining in London, and that he never meant to return to Philadelphia. He had brought no money with him, the whole he could muster having been expended in paying his passage. I had fifteen pistoles; so he borrowed occasionally of me to subsist, while he was looking out for business. He first endeavoured to get into the playhouse, believing himself qualify'd for an actor; but Wilkes, to whom he apply'd, *advis'd him* candidly not to think of that employment, as it *was impossible* he should succeed in it. Then he propos'd

to Roberts, a publisher in Paternoster Row, to write for him a weekly paper like the Spectator, on certain conditions, which Roberts did not approve. Then he endeavoured to get employment as a hackney writer, to copy for the stationers and lawyers about the Temple, but could find no vacancy.

I immediately got into work at Palmer's, then a famous printing-house in Bartholomew Close, and here I continu'd near a year. I was pretty diligent, but spent with Ralph a good deal of my earnings in going to plays and other places of amusement. We had together consumed all my pistoles, and now just rubbed on from hand to mouth. He seem'd quite to forget his wife and child, and I, by degrees, my engagements with Miss Read, to whom I never wrote more than one letter, and that was to let her know I was not likely soon to return. This was another of the great errata of my life, which I should wish to correct if I were to live it over again. In fact, by our expenses, I was constantly kept unable to pay my passage.

At Palmer's I was employed in composing for the second edition of Wollaston's "Religion of Nature." [1] Some of his reasonings not appearing to me well founded, I wrote a little metaphysical piece in which I made remarks on them. It was entitled "A Dissertation on Liberty and Necessity, Pleasure and Pain." I inscribed it to my friend Ralph; I printed a small number. It occasion'd my being more consider'd by Mr. Palmer as a young man of some ingenuity, tho' he seriously expostulated with me upon the principles of my pamphlet, which to him appear'd abominable. My

[1] William Wollaston (1660–1724), "The Religion of Nature Delineated." *London: Printed by S. Palmer*, 1725.

printing this pamphlet was another erratum. While I lodg'd in Little Britain, I made an acquaintance with one Wilcox, a bookseller, whose shop was at the next door. He had an immense collection of second-hand books. Circulating libraries were not then in use; but we agreed that, on certain reasonable terms, which I have now forgotten, I might take, read, and return any of his books. This I esteem'd a great advantage, and I made as much use of it as I could.

My pamphlet by some means falling into the hands of one Lyons, a surgeon, author of a book entitled "The Infallibility of Human Judgment," [1] it occasioned an acquaintance between us. He took great notice of me, called on me often to converse on those subjects, carried me to the Horns, a pale alehouse in —— Lane, Cheapside, and introduced me to Dr. Mandeville, author of the "Fable of the Bees," [2] who had a club there, of which he was the soul, being a most facetious, entertaining companion. Lyons, too, introduced me to Dr. Pemberton,[3] at Batson's Coffee-house, who promis'd to give me an opportunity, some time or other, of seeing Sir Isaac Newton, of which I was extreamly desirous; but this never happened.

I had brought over a few curiosities, among which the principal was a purse made of the asbestos, which purifies by fire. Sir Hans Sloane heard of it, came to see me, and

[1] Lyons, "The Infallibility of Human Judgment," fifth edition. London: 1725.

[2] Bernard Mandeville (1670?–1733), "The Fable of the Bees, or Private Vices Public Benefits," 1714.

[3] Henry Pemberton (1694–1771) was employed by Newton to superintend *the third* edition of the "Principia." He published "A View of Sir I. Newton's Philosophy," 1728. — Ed.

invited me to his house in Bloomsbury Square, where he show'd me all his curiosities, and persuaded me to let him add that to the number, for which he paid me handsomely.[1]

In our house there lodg'd a young woman, a milliner, who, I think, had a shop in the Cloisters. She had been genteelly bred, was sensible and lively, and of most pleasing conversation. Ralph read plays to her in the evenings, they grew intimate, she took another lodging, and he followed her. They liv'd together some time; but, he being still out of business, and her income not sufficient to maintain them with her child, he took a resolution of going from London, to try for a country school, which he thought himself well qualified to undertake, as he wrote an excellent hand, and was a master of arithmetic and accounts. This, however, he deemed a business below him, and confident of future better fortune, when he should be unwilling to have it known that he once was so meanly employed, he changed his name, and did me the honour to assume mine; for I soon after had a letter from him, acquainting me that he was settled in a small village (in Berkshire, I think it was, where he taught reading and writing to ten or a dozen boys, at sixpence each per week), recommending Mrs. T—— to my care, and desiring me to write to him, directing for Mr. Franklin, schoolmaster, at such a place.

He continued to write frequently, sending me large specimens of an epic poem which he was then composing, and desiring my remarks and corrections. These I gave him from time to time, but endeavour'd rather to discourage his proceeding. One of Young's Satires was then just published.[2]

[1] See letter from Franklin to Sloane (1660–1753), dated June 2, 1725. — ED.

[2] *Young, Vol. III., Epist. II.*, p. 70. — ED.

I copy'd and sent him a great part of it, which set in a strong light the folly of pursuing the Muses with any hope of advancement by them. All was in vain; sheets of the poem continued to come by every post. In the mean time, Mrs. T——, having on his account lost her friends and business, was often in distresses, and us'd to send for me, and borrow what I could spare to help her out of them. I grew fond of her company, and, being at that time under no religious restraint, and presuming upon my importance to her, I attempted familiarities (another erratum) which she repuls'd with a proper resentment, and acquainted him with my behaviour. This made a breach between us; and, when he returned again to London, he let me know he thought I had cancell'd all the obligations he had been under to me. So I found I was never to expect his repaying me what I lent to him, or advanc'd for him. This, however, was not then of much consequence, as he was totally unable; and in the loss of his friendship I found myself relieved from a burthen. I now began to think of getting a little money beforehand, and, expecting better work, I left Palmer's to work at Watts's, near Lincoln's Inn Fields, a still greater printing-house.[1] Here I continued all the rest of my stay in London.

At my first admission into this printing-house I took to working at press, imagining I felt a want of the bodily exercise I had been us'd to in America, where presswork is mix'd with composing. I drank only water; the other workmen, near fifty in number, were great guzzlers of beer. On occasion, I carried up and down stairs a large form of types in each hand, when others carried but one in both hands. They

[1] Watts's printing-office was situated on the south side of Wild-Court, near the eastern end, and three doors from King's Head Yard.—B.

wondered to see, from this and several instances, that the *Water-American*, as they called me, was *stronger* than themselves, who drank *strong* beer! We had an alehouse boy who attended always in the house to supply the workmen. My companion at the press drank every day a pint before breakfast, a pint at breakfast with his bread and cheese, a pint between breakfast and dinner, a pint at dinner, a pint in the afternoon about six o'clock, and another when he had done his day's work. I thought it a detestable custom; but it was necessary, he suppos'd, to drink *strong* beer, that he might be *strong* to labour. I endeavoured to convince him that the bodily strength afforded by beer could only be in proportion to the grain or flour of the barley dissolved in the water of which it was made; that there was more flour in a pennyworth of bread; and therefore, if he would eat that with a pint of water, it would give him more strength than a quart of beer. He drank on, however, and had four or five shillings to pay out of his wages every Saturday night for that muddling liquor; an expense I was free from. And thus these poor devils keep themselves always under.

Watts, after some weeks, desiring to have me in the composing-room, I left the pressmen; a new bien venu or sum for drink, being five shillings, was demanded of me by the compositors. I thought it an imposition, as I had paid below; the master thought so too, and forbad my paying it. I stood out two or three weeks, was accordingly considered as an excommunicate, and had so many little pieces of private mischief done me, by mixing my sorts, transposing my pages, breaking my matter, etc., etc., if I were ever so little out of the room, and all ascribed to the chappel ghost, which they said *ever haunted those* not regularly admitted, that, not-

withstanding the master's protection, I found myself oblig'd to comply and pay the money, convinc'd of the folly of being on ill terms with those one is to live with continually.

I was now on a fair footing with them, and soon acquir'd considerable influence. I propos'd some reasonable alterations in their chappel [1] laws, and carried them against all opposition. From my example, a great part of them left their muddling breakfast of beer, and bread, and cheese, finding they could with me be supply'd from a neighbouring house with a large porringer of hot water-gruel, sprinkled with pepper, crumb'd with bread, and a bit of butter in it, for the price of a pint of beer, viz., three half-pence. This was a more comfortable as well as cheaper breakfast, and kept their heads clearer. Those who continued sotting with beer all day, were often, by not paying, out of credit at the alehouse, and us'd to make interest with me to get beer; their *light*, as they phrased it, *being out*. I watch'd the pay-table on Saturday night, and collected what I stood engag'd for them, having to pay sometimes near thirty shillings a week on their accounts. This, and my being esteem'd a pretty good *riggite*, that is, a jocular verbal satirist, supported my consequence in the society. My constant attendance (I never making a St. Monday) recommended me to the master; and my uncommon quickness at composing

[1] "A printing-house is always called a chapel by the workmen, the origin of which appears to have been, that printing was first carried on in England in an antient chapel converted into a printing-house, and the title has been preserved by tradition. The bien venu among the printers answers to the terms entrance and footing among mechanics; thus a journeyman, on entering a printing-house, was accustomed to pay one or more gallons of beer for the good of the chapel: this custom was falling into disuse thirty years ago; *it is very* properly rejected entirely in the United States." — W. T. F.

See letter from Franklin to William Strahan, August 19, 1784. — Ed.

ɔcasioned my being put upon all work of dispatch, which as generally better paid. So I went on now very agreeɔly.

My lodging in Little Britain being too remote, I found ɔnother in Duke-street, opposite to the Romish Chapel. It ʳas two pair of stairs backwards, at an Italian warehouse. ˌ widow lady kept the house; she had a daughter, and a ɔaid servant, and a journeyman who attended the wareɹouse, but lodg'd abroad. After sending to inquire my ɨharacter at the house where I last lodg'd she agreed to ake me in at the same rate, 3s. 6d. per week; cheaper, as ɨhe said, from the protection she expected in having a man odge in the house. She was a widow, an elderly woman; ıad been bred a Protestant, being a clergyman's daughter, ɔut was converted to the Catholic religion by her husband, ʍhose memory she much revered; had lived much among ɔeople of distinction, and knew a thousand anecdotes of ɨhem as far back as the times of Charles the Second. She ʍas lame in her knees with the gout, and, therefore, seldom ɨtirred out of her room, so sometimes wanted company; and ıers was so highly amusing to me, that I was sure to spend n evening with her whenever she desired it. Our supper ʳas only half an anchovy each, on a very little strip of bread nd butter, and half a pint of ale between us; but the enɜrtainment was in her conversation. My always keeping ood hours, and giving little trouble in the family, made her ɹnwilling to part with me; so that, when I talk'd of a lodgɲg I had heard of, nearer my business, for two shillings a ʋeek, which, intent as I now was on saving money, made ɹome difference, she bid me not think of it, for she would ıbate *me two shillings* a week for the future; so I remained

with her at one shilling and sixpence as long as I staid in London.

In a garret of her house there lived a maiden lady of seventy, in the most retired manner, of whom my landlady gave me this account: that she was a Roman Catholic, had been sent abroad when young, and lodg'd in a nunnery with an intent of becoming a nun; but, the country not agreeing with her, she returned to England, where, there being no nunnery, she had vow'd to lead the life of a nun, as near as might be done in those circumstances. Accordingly, she had given all her estate to charitable uses, reserving only twelve pounds a year to live on, and out of this sum she still gave a great deal in charity, living herself on water-gruel only, and using no fire but to boil it. She had lived many years in that garret, being permitted to remain there gratis by successive Catholic tenants of the house below, as they deemed it a blessing to have her there. A priest visited her to confess her every day. "I have ask'd her," says my landlady, "how she, as she liv'd, could possibly find so much employment for a confessor?" "Oh," said she, "it is impossible to avoid *vain thoughts*." I was permitted once to visit her. She was chearful and polite, and convers'd pleasantly. The room was clean, but had no other furniture than a matras, a table with a crucifix and book, a stool which she gave me to sit on, and a picture over the chimney of Saint Veronica displaying her handkerchief, with the miraculous figure of Christ's bleeding face on it, which she explained to me with great seriousness. She look'd pale, but was never sick; and I give it as another instance on how small an income, *life* and health may be supported.

At Watts's printing-house I contracted an acquaintance

with an ingenious young man, one Wygate, who, having wealthy relations, had been better educated than most printers; was a tolerable Latinist, spoke French, and lov'd reading. I taught him and a friend of his to swim at twice going into the river, and they soon became good swimmers. They introduc'd me to some gentlemen from the country, who went to Chelsea by water to see the College and Don Saltero's curiosities.[1] In our return, at the request of the company, whose curiosity Wygate had excited, I stripped and leaped into the river, and swam from near Chelsea to Blackfryar's, performing on the way many feats of activity, both upon and under water, that surpris'd and pleas'd those to whom they were novelties.

I had from a child been ever delighted with this exercise, had studied and practis'd all Thevenot's motions and positions, added some of my own, aiming at the graceful and easy as well as the useful. All these I took this occasion of exhibiting to the company, and was much flatter'd by their admiration; and Wygate, who was desirous of becoming a master, grew more and more attach'd to me on that account, as well as from the similarity of our studies. He at length proposed to me travelling all over Europe together, supporting ourselves everywhere by working at our business. I was once inclined to it; but, mentioning it to my good friend Mr. Denham, with whom I often spent an hour when I had

[1] James Salter lived in Cheyne Walk, Chelsea. His house, a barber-shop, was known as "Don Saltero's coffee-house" and was a favorite lounge for Sloane and Oldham. The curiosities were in glass cases and constituted an amazing and motley collection — a petrified crab from China, a "lignified hog," Job's tears, Madagascar lances, William the Conqueror's flaming sword, and Henry the Eighth's coat of mail. See "A Catalogue of the Rarities to be seen at Don Saltero's Coffee House in Chelsea," printed by Salter and sold for two pence. — ED.

leisure, he dissuaded me from it, advising me to think only of returning to Pennsilvania, which he was now about to do.

I must record one trait of this good man's character. He had formerly been in business at Bristol, but failed in debt to a number of people, compounded and went to America. There, by a close application to business as a merchant, he acquir'd a plentiful fortune in a few years. Returning to England in the ship with me, he invited his old creditors to an entertainment, at which he thank'd them for the easy composition they had favoured him with, and, when they expected nothing but the treat, every man at the first remove found under his plate an order on a banker for the full amount of the unpaid remainder with interest.

He now told me he was about to return to Philadelphia, and should carry over a great quantity of goods in order to open a store there. He propos'd to take me over as his clerk, to keep his books, in which he would instruct me, copy his letters, and attend the store. He added, that, as soon as I should be acquainted with mercantile business, he would promote me by sending me with a cargo of flour and bread, etc., to the West Indies, and procure me commissions from others which would be profitable; and, if I manag'd well, would establish me handsomely. The thing pleas'd me; for I was grown tired of London, remembered with pleasure the happy months I had spent in Pennsylvania, and wish'd again to see it; therefore I immediately agreed on the terms of fifty pounds a year, Pennsylvania money; less, indeed, than my present gettings as a compositor, but affording a better prospect.

I now took leave of printing, as I thought, for ever, and was daily employed in my new business, going about with Mr. Denham among the tradesmen to purchase various arti-

cles, and seeing them pack'd up, doing errands, calling upon workmen to dispatch, etc.; and, when all was on board, I had a few days' leisure. On one of these days, I was, to my surprise, sent for by a great man I knew only by name, a Sir William Wyndham,[1] and I waited upon him. He had heard by some means or other of my swimming from Chelsea to Blackfriar's, and of my teaching Wygate and another young man to swim in a few hours. He had two sons, about to set out on their travels; he wish'd to have them first taught swimming, and proposed to gratify me handsomely if I would teach them. They were not yet come to town, and my stay was uncertain, so I could not undertake it; but, from this incident, I thought it likely that, if I were to remain in England and open a swimming-school, I might get a good deal of money; and it struck me so strongly, that, had the overture been sooner made me, probably I should not so soon have returned to America. After many years, you and I had something of more importance to do with one of these sons of Sir William Wyndham, become Earl of Egremont, which I shall mention in its place.

Thus I spent about eighteen months in London; most part of the time I work'd hard at my business, and spent but little upon myself except in seeing plays and in books. My friend Ralph had kept me poor; he owed me about twenty-seven pounds, which I was now never likely to receive; a great sum out of my small earnings! I lov'd him, notwithstanding, for he had many amiable qualities. I had by no

[1] Sir William Wyndham (1687–1740), a political and ethical disciple of Bolingbroke. The two sons referred to by Franklin were Sir Charles Wyndham, second Earl of Egremont (1710–1763), and Percy O'Brien, Earl of Thomond. — *Ed.*

means improv'd my fortune; but I had picked up some very ingenious acquaintance, whose conversation was of great advantage to me; and I had read considerably.

We sail'd from Gravesend on the 23rd of July, 1726. For the incidents of the voyage, I refer you to my Journal, where you will find them all minutely related. Perhaps the most important part of that journal is the *plan*[1] to be found in it, which I formed at sea, for regulating my future conduct in life. It is the more remarkable, as being formed when I was so young, and yet being pretty faithfully adhered to quite thro' to old age.

We landed in Philadelphia on the 11th of October, where I found sundry alterations. Keith was no longer governor, being superseded by Major Gordon. I met him walking the streets as a common citizen. He seem'd a little asham'd at seeing me, but pass'd without saying any thing. I should have been as much asham'd at seeing Miss Read, had not her friends, despairing with reason of my return after the receipt of my letter, persuaded her to marry another, one Rogers, a potter, which was done in my absence. With him, however, she was never happy, and soon parted from him, refusing to cohabit with him or bear his name, it being now said that he had another wife. He was a worthless fellow, tho' an excellent workman, which was the temptation to her friends. He got into debt, ran away in 1727 or 1728, went to the West Indies, and died there. Keimer had got a better house, a shop well supply'd with stationery, plenty of new types, a number of hands, tho' none good, and seem'd to have a great deal of business.

[1] *The* "Journal" was printed by W. T. Franklin from a copy made at *Reading in* 1787. But it does not contain the Plan.—Ed.

Mr. Denham took a store in Water-street, where we open'd our goods; I attended the business diligently, studied accounts, and grew, in a little time, expert at selling. We lodg'd and boarded together; he counsell'd me as a father, having a sincere regard for me. I respected and loved him, and we might have gone on together very happy, but, in the beginning of February, 172$\frac{6}{7}$, when I had just pass'd my twenty-first year, we both were taken ill. My distemper was a pleurisy, which very nearly carried me off. I suffered a good deal, gave up the point in my own mind, and was rather disappointed when I found myself recovering, regretting, in some degree, that I must now, some time or other, have all that disagreeable work to do over again. I forget what his distemper was; it held him a long time, and at length carried him off. He left me a small legacy in a nuncupative will, as a token of his kindness for me, and he left me once more to the wide world; for the store was taken into the care of his executors, and my employment under him ended.

My brother-in-law, Holmes, being now at Philadelphia, advised my return to my business; and Keimer tempted me, with an offer of large wages by the year, to come and take the management of his printing-house, that he might better attend his stationer's shop. I had heard a bad character of him in London from his wife and her friends, and was not fond of having any more to do with him. I tri'd for farther employment as a merchant's clerk; but, not readily meeting with any, I clos'd again with Keimer. I found in his house these hands: Hugh Meredith, a Welsh Pensilvanian, thirty years of age, bred to country work; honest, sensible, had a great deal of solid observation, was something of a reader, but *given to drink.* Stephen Potts, a young countryman of

full age, bred to the same, of uncommon natural parts, and great wit and humour, but a little idle. These he had agreed with at extream low wages per week, to be rais'd a shilling every three months, as they would deserve by improving in their business; and the expectation of these high wages, to come on hereafter, was what he had drawn them in with. Meredith was to work at press, Potts at book-binding, which he, by agreement, was to teach them, though he knew neither one nor t'other. John ——, a wild Irishman, brought up to no business, whose service, for four years, Keimer had purchased from the captain of a ship; he, too, was to be made a pressman. George Webb, an Oxford scholar, whose time for four years he had likewise bought, intending him for a compositor, of whom more presently; and David Harry, a country boy, whom he had taken apprentice.

I soon perceiv'd that the intention of engaging me at wages so much higher than he had been us'd to give, was, to have these raw, cheap hands form'd thro' me; and, as soon as I had instructed them, then they being all articled to him, he should be able to do without me. I went on, however, very chearfully, put his printing-house in order, which had been in great confusion, and brought his hands by degrees to mind their business and to do it better.

It was an odd thing to find an Oxford scholar in the situation of a bought servant. He was not more than eighteen years of age, and gave me this account of himself; that he was born in Gloucester, educated at a grammar-school there, had been distinguish'd among the scholars for some apparent superiority in performing his part, when they exhibited *plays;* belong'd to the Witty Club there, and had written *some pieces* in prose and verse, which were printed in the

Gloucester newspapers; thence he was sent to Oxford; where he continued about a year, but not well satisfi'd, wishing of all things to see London, and become a player. At length, receiving his quarterly allowance of fifteen guineas, instead of discharging his debts he walk'd out of town, hid his gown in a furze bush, and footed it to London, where, having no friends to advise him, he fell into bad company, soon spent his guineas, found no means of being introduc'd among the players, grew necessitous, pawn'd his cloaths, and wanted bread. Walking the street very hungry, and not knowing what to do with himself, a crimp's bill was put into his hand, offering immediate entertainment and encouragement to such as would bind themselves to serve in America. He went directly, sign'd the indentures, was put into the ship, and came over, never writing a line to acquaint his friends what was become of him. He was lively, witty, good-natur'd, and a pleasant companion, but idle, thoughtless, and imprudent to the last degree.

John, the Irishman, soon ran away; with the rest I began to live very agreeably, for they all respected me the more, as they found Keimer incapable of instructing them, and that from me they learned something daily. We never worked on Saturday, that being Keimer's Sabbath, so I had two days for reading. My acquaintance with ingenious people in the town increased. Keimer himself treated me with great civility and apparent regard, and nothing now made me uneasy but my debt to Vernon, which I was yet unable to pay, being hitherto but a poor œconomist. He, however, kindly made no demand of it.

Our printing-house often wanted sorts, and there was no letter-*founder in America*; I had seen types cast at James's

in London, but without much attention to the manner; however, I now contrived a mould, made use of the letters we had as puncheons, struck the matrices in lead, and thus supply'd in a pretty tolerable way all deficiencies. I also engrav'd several things on occasion; I made the ink; I was warehouseman, and everything, and, in short, quite a fac-totum.

But, however serviceable I might be, I found that my services became every day of less importance, as the other hands improv'd in the business; and, when Keimer paid my second quarter's wages, he let me know that he felt them too heavy, and thought I should make an abatement. He grew by degrees less civil, put on more of the master, frequently found fault, was captious, and seem'd ready for an outbreaking. I went on, nevertheless, with a good deal of patience, thinking that his encumber'd circumstances were partly the cause. At length a trifle snapt our connections; for, a great noise happening near the court-house, I put my head out of the window to see what was the matter. Keimer, being in the street, look'd up and saw me, call'd out to me in a loud voice and angry tone to mind my business, adding some reproachful words, that nettled me the more for their publicity, all the neighbours who were looking out on the same occasion being witnesses how I was treated. He came up immediately into the printing-house, continu'd the quarrel, high words pass'd on both sides, he gave me the quarter's warning we had stipulated, expressing a wish that he had not been oblig'd to so long a warning. I told him his wish was unnecessary, for I would leave him that instant; and so, taking my hat, walk'd out of doors, desiring Meredith, whom I saw below, to take care of some things I left, and bring them to my lodgings.

Meredith came accordingly in the evening, when we talked

my affair over. He had conceiv'd a great regard for me, and was very unwilling that I should leave the house while he remain'd in it. He dissuaded me from returning to my native country, which I began to think of; he reminded me that Keimer was in debt for all he possess'd; that his creditors began to be uneasy; that he kept his shop miserably, sold often without profit for ready money, and often trusted without keeping accounts; that he must therefore fail, which would make a vacancy I might profit of. I objected my want of money. He then let me know that his father had a high opinion of me, and, from some discourse that had pass'd between them, he was sure would advance money to set us up, if I would enter into partnership with him. "My time," says he, "will be out with Keimer in the spring; by that time we may have our press and types in from London. I am sensible I am no workman; if you like it, your skill in the business shall be set against the stock I furnish, and we will share the profits equally."

The proposal was agreeable, and I consented; his father was in town and approv'd of it; the more as he saw I had great influence with his son, had prevail'd on him to abstain long from dram-drinking, and he hop'd might break him off that wretched habit entirely, when we came to be so closely connected. I gave an inventory to the father, who carry'd it to a merchant; the things were sent for, the secret was to be kept till they should arrive, and in the mean time I was to get work, if I could, at the other printing-house. But I found no vacancy there, and so remain'd idle a few days, when Keimer, on a prospect of being employ'd to print some paper money in New Jersey, which would require cuts and various types *that I only could* supply, and apprehending Bradford

might engage me and get the jobb from him, sent me a very civil message, that old friends should not part for a few words, the effect of sudden passion, and wishing me to return. Meredith persuaded me to comply, as it would give more opportunity for his improvement under my daily instructions; so I return'd, and we went on more smoothly than for some time before. The New Jersey jobb was obtain'd, I contriv'd a copperplate press for it, the first that had been seen in the country; I cut several ornaments and checks for the bills. We went together to Burlington, where I executed the whole to satisfaction; and he received so large a sum for the work as to be enabled thereby to keep his head much longer above water.

At Burlington I made an acquaintance with many principal people of the province. Several of them had been appointed by the Assembly a committee to attend the press, and take care that no more bills were printed than the law directed. They were therefore, by turns, constantly with us, and generally he who attended, brought with him a friend or two for company. My mind having been much more improv'd by reading than Keimer's,- I suppose it was for that reason my conversation seem'd to be more valu'd. They had me to their houses, introduced me to their friends, and show'd me much civility; while he, tho' the master, was a little neglected. In truth, he was an odd fish; ignorant of common life, fond of rudely opposing receiv'd opinions, slovenly to extream dirtiness, enthusiastic in some points of religion, and a little knavish withal.

We continu'd there near three months; and by that time I could reckon among my acquired friends, Judge Allen, *Samuel Bustill*, the secretary of the Province, Isaac Pearson,

Joseph Cooper, and several of the Smiths, members of Assembly, and Isaac Decow, the surveyor-general. The latter was a shrewd, sagacious old man, who told me that he began for himself, when young, by wheeling clay for the brickmakers, learned to write after he was of age, carri'd the chain for surveyors, who taught him surveying, and he had now by his industry, acquir'd a good estate; and says he, "I foresee that you will soon work this man out of his business, and make a fortune in it at Philadelphia." He had not then the least intimation of my intention to set up there or anywhere. These friends were afterwards of great use to me, as I occasionally was to some of them. They all continued their regard for me as long as they lived.

Before I enter upon my public appearance in business, it may be well to let you know the then state of my mind with regard to my principles and morals, that you may see how far those influenc'd the future events of my life. My parents had early given me religious impressions, and brought me through my childhood piously in the Dissenting way. But I was scarce fifteen, when, after doubting by turns of several points, as I found them disputed in the different books I read, I began to doubt of Revelation itself. Some books against Deism fell into my hands; they were said to be the substance of sermons preached at Boyle's Lectures. It happened that they wrought an effect on me quite contrary to what was intended by them; for the arguments of the Deists, which were quoted to be refuted, appeared to me much stronger than the refutations; in short, I soon became a thorough Deist. My arguments perverted some others, particularly Collins and Ralph; but, each of them having afterwards *wrong'd me greatly* without the least compunction, and

recollecting Keith's conduct towards me (who was another freethinker), and my own towards Vernon and Miss Read, which at times gave me great trouble, I began to suspect that this doctrine, tho' it might be true, was not very useful. My London pamphlet, which had for its motto these lines of Dryden:

> "Whatever is, is right. Though purblind man
> Sees but a part o' the chain, the nearest link:
> His eyes not carrying to the equal beam,
> That poises all above;"

and from the attributes of God, his infinite wisdom, goodness and power, concluded that nothing could possibly be wrong in the world, and that vice and virtue were empty distinctions, no such things existing, appear'd now not so clever a performance as I once thought it; and I doubted whether some error had not insinuated itself unperceiv'd into my argument, so as to infect all that follow'd, as is common in metaphysical reasonings.[1]

I grew convinc'd that *truth*, *sincerity* and *integrity* in dealings between man and man were of the utmost importance to the felicity of life; and I form'd written resolutions, which still remain in my journal book, to practice them ever while I lived. Revelation had indeed no weight with me, as such; but I entertain'd an opinion that, though certain actions might not be bad *because* they were forbidden by it, or good *because* it commanded them, yet probably these actions might be forbidden *because* they were bad for us, or commanded *because* they were beneficial to us, in their own natures, all the circumstances of things considered. And this persua-

[1] I have not reprinted this pamphlet. It has no merit. Franklin regarded his printing it as an *erratum*, and he would have been distressed at its republication. — ED.

sion, with the kind hand of Providence, or some guardian angel, or accidental favourable circumstances and situations, or all together, preserved me, thro' this dangerous time of youth, and the hazardous situations I was sometimes in among strangers, remote from the eye and advice of my father, without any willful gross immorality or injustice, that might have been expected from my want of religion.[1] I say willful, because the instances I have mentioned had something of *necessity* in them, from my youth, inexperience, and the knavery of others. I had therefore a tolerable character to begin the world with; I valued it properly, and determin'd to preserve it.

We had not been long return'd to Philadelphia before the new types arriv'd from London. We settled with Keimer, and left him by his consent before he heard of it. We found a house to hire near the market, and took it. To lessen the rent, which was then but twenty-four pounds a year, tho' I have since known it to let for seventy, we took in Thomas Godfrey, a glazier, and his family, who were to pay a considerable part of it to us, and we to board with them. We had scarce opened our letters and put our press in order, before George House, an acquaintance of mine, brought a countryman to us, whom he had met in the street inquiring for a printer. All our cash was now expended in the variety of particulars we had been obliged to procure, and this countryman's five shillings, being our first-fruits, and coming so seasonably, gave me more pleasure than any crown I have

[1] The words, "Some foolish intrigues with low women excepted, which from the expense were rather more prejudicial to me than to them," effaced on the revision, and the sentence which follows in the text written in the margin. — *B.*

since earned; and the gratitude I felt toward House has made me often more ready than perhaps I should otherwise have been to assist young beginners.

There are croakers in every country, always boding its ruin. Such a one then lived in Philadelphia; a person of note, an elderly man, with a wise look and a very grave manner of speaking; his name was Samuel Mickle. This gentleman, a stranger to me, stopt one day at my door, and asked me if I was the young man who had lately opened a new printing-house. Being answered in the affirmative, he said he was sorry for me, because it was an expensive undertaking, and the expense would be lost; for Philadelphia was a sinking place, the people already half-bankrupts, or near being so; all appearances to the contrary, such as new buildings and the rise of rents, being to his certain knowledge fallacious; for they were, in fact, among the things that would soon ruin us. And he gave me such a detail of misfortunes now existing, or that were soon to exist, that he left me half melancholy. Had I known him before I engaged in this business, probably I never should have done it. This man continued to live in this decaying place, and to declaim in the same strain, refusing for many years to buy a house there, because all was going to destruction; and at last I had the pleasure of seeing him give five times as much for one as he might have bought it for when he first began his croaking.

I should have mentioned before, that, in the autumn of the preceding year, I had form'd most of my ingenious acquaintance into a club of mutual improvement, which we called the JUNTO; we met on Friday evenings. The rules that I drew up required that every member, in his turn,

should produce one or more queries on any point of Morals, Politics, or Natural Philosophy, to be discuss'd by the company; and once in three months produce and read an essay of his own writing, on any subject he pleased. Our debates were to be under the direction of a president, and to be conducted in the sincere spirit of inquiry after truth, without fondness for dispute, or desire of victory; and, to prevent warmth, all expressions of positiveness in opinions, or direct contradiction, were after some time made contraband, and prohibited under small pecuniary penalties.

The first members were Joseph Breintnal, a copyer of deeds for the scriveners, a good-natur'd, friendly, middle-ag'd man, a great lover of poetry, reading all he could meet with, and writing some that was tolerable; very ingenious in many little Nicknackeries, and of sensible conversation.

Thomas Godfrey,[1] a self-taught mathematician, great in his way, and afterward inventor of what is now called Hadley's Quadrant. But he knew little out of his way, and was not a pleasing companion; as, like most great mathematicians I have met with, he expected universal precision in everything said, or was for ever denying or distinguishing upon trifles, to the disturbance of all conversation. He soon left us.

Nicholas Scull, a surveyor, afterwards surveyor-general, who lov'd books, and sometimes made a few verses.

William Parsons, bred a shoemaker, but, loving reading, had acquir'd a considerable share of mathematics, which he

[1] Thomas Godfrey, a glazier, born in Bristol, Pennsylvania, 1704; died in Philadelphia, 1749. For his discovery of the principle upon which he constructed his improvement upon Davis's quadrant see Smyth, "Philadelphia Magazines and their Contributors," 1892, pp. 41–42. — ED.

first studied with a view to astrology, that he afterwards laught at it. He also became surveyor-general.

William Maugridge, a joiner, a most exquisite mechanic, and a solid, sensible man.

Hugh Meredith, Stephen Potts, and George Webb I have characteriz'd before.

Robert Grace, a young gentleman of some fortune, generous, lively, and witty; a lover of punning and of his friends.

And William Coleman, then a merchant's clerk, about my age, who had the coolest, clearest head, the best heart, and the exactest morals of almost any man I ever met with. He became afterwards a merchant of great note, and one of our provincial judges. Our friendship continued without interruption to his death, upwards of forty years; and the club continued almost as long, and was the best school of philosophy, morality, and politics that then existed in the province; for our queries, which were read the week preceding their discussion, put us upon reading with attention upon the several subjects, that we might speak more to the purpose; and here, too, we acquired better habits of conversation, every thing being studied in our rules which might prevent our disgusting each other. From hence the long continuance of the club, which I shall have frequent occasion to speak further of hereafter.

But my giving this account of it here is to show something of the interest I had, every one of these exerting themselves in recommending business to us. Breintnal particularly procur'd us from the Quakers the printing forty sheets of their history, the rest being to be done by Keimer; and upon this we work'd exceedingly hard, for the price was low. It was

a folio, pro patria size, in pica, with long primer notes. I compos'd of it a sheet a day, and Meredith worked it off at press; it was often eleven at night, and sometimes later, before I had finished my distribution for the next day's work, for the little jobbs sent in by our other friends now and then put us back. But so determin'd I was to continue doing a sheet a day of the folio, that one night, when, having impos'd my forms, I thought my day's work over, one of them by accident was broken, and two pages reduced to pi, I immediately distributed and compos'd it over again before I went to bed; and this industry, visible to our neighbors, began to give us character and credit; particularly, I was told, that mention being made of the new printing-office at the merchants' Every-night club, the general opinion was that it must fail, there being already two printers in the place, Keimer and Bradford; but Dr. Baird (whom you and I saw many years after at his native place, St. Andrew's in Scotland) gave a contrary opinion: "For the industry of that Franklin," says he, "is superior to any thing I ever saw of the kind; I see him still at work when I go home from club, and he is at work again before his neighbors are out of bed." This struck the rest, and we soon after had offers from one of them to supply us with stationery; but as yet we did not chuse to engage in shop business.

I mention this industry the more particularly and the more freely, tho' it seems to be talking in my own praise, that those of my posterity, who shall read it, may know the use of that virtue, when they see its effects in my favour throughout this relation.

George Webb, who had found a female friend that lent *him wherewith to purchase* his time of Keimer, now came to

offer himself as a journeyman to us. We could not then imploy him; but I foolishly let him know as a secret that I soon intended to begin a newspaper, and might then have work for him. My hopes of success, as I told him, were founded on this, that the then only newspaper, printed by Bradford, was a paltry thing, wretchedly manag'd, no way entertaining, and yet was profitable to him; I therefore thought a good paper would scarcely fail of good encouragement. I requested Webb not to mention it; but he told it to Keimer, who immediately, to be beforehand with me, published proposals for printing one himself, on which Webb was to be employ'd. I resented this; and, to counteract them, as I could not yet begin our paper, I wrote several pieces of entertainment for Bradford's paper, under the title of the BUSY BODY, which Breintnal continu'd some months. By this means the attention of the publick was fixed on that paper, and Keimer's proposals, which we burlesqu'd and ridicul'd, were disregarded. He began his paper, however, and, after carrying it on three quarters of a year, with at most only ninety subscribers, he offered it to me for a trifle; and I, having been ready some time to go on with it, took it in hand directly; and it prov'd in a few years extremely profitable to me.[1]

I perceive that I am apt to speak in the singular number, though our partnership still continu'd; the reason may be that, in fact, the whole management of the business lay upon me. Meredith was no compositor, a poor pressman, and

[1] Under Keimer's management this paper was called *The Universal Instructor in all Arts and Sciences and Pennsylvania Gazette.* Franklin's proprietorship dates from October 2, 1729; from which time it was called *The Pennsylvania Gazette.* — ED.

seldom sober. My friends lamented my connection with him, but I was to make the best of it.

Our first papers made a quite different appearance from any before in the province; a better type, and better printed; but some spirited remarks of my writing, on the dispute then going on between Governor Burnet and the Massachusets Assembly, struck the principal people, occasioned the paper and the manager of it to be much talk'd of, and in a few weeks brought them all to be our subscribers.

Their example was follow'd by many, and our number went on growing continually. This was one of the first good effects of my having learnt a little to scribble; another was, that the leading men, seeing a newspaper now in the hands of one who could also handle a pen, thought it convenient to oblige and encourage me. Bradford still printed the votes, and laws, and other publick business. He had printed an address of the House to the governor, in a coarse, blundering manner; we reprinted it elegantly and correctly, and sent one to every member. They were sensible of the difference: it strengthened the hands of our friends in the House, and they voted us their printers for the year ensuing.

Among my friends in the House I must not forget Mr. Hamilton, before mentioned, who was then returned from England, and had a seat in it. He interested himself for me strongly in that instance, as he did in many others afterward, continuing his patronage till his death.[1]

Mr. Vernon, about this time, put me in mind of the debt I ow'd him, but did not press me. I wrote him an ingenuous letter of acknowledgment, crav'd his forbearance a little longer, which he allow'd me, and as soon as I was able, I

[1] *I got his son once £500. — Marg. note.*

paid the principal with interest, and many thanks; so that erratum was in some degree corrected.

But now another difficulty came upon me which I had never the least reason to expect. Mr. Meredith's father, who was to have paid for our printing-house, according to the expectations given me, was able to advance only one hundred pounds currency, which had been paid; and a hundred more was due to the merchant, who grew impatient, and su'd us all. We gave bail, but saw that, if the money could not be rais'd in time, the suit must soon come to a judgment and execution, and our hopeful prospects must, with us, be ruined, as the press and letters must be sold for payment, perhaps at half price.

In this distress two true friends, whose kindness I have never forgotten, nor ever shall forget while I can remember any thing, came to me separately, unknown to each other, and, without any application from me, offering each of them to advance me all the money that should be necessary to enable me to take the whole business upon myself, if that should be practicable; but they did not like my continuing the partnership with Meredith, who, as they said, was often seen drunk in the streets, and playing at low games in ale-houses, much to our discredit. These two friends were William Coleman and Robert Grace. I told them I could not propose a separation while any prospect remain'd of the Meredith's fulfilling their part of our agreement, because I thought myself under great obligations to them for what they had done, and would do if they could; but, if they finally fail'd in their performance, and our partnership must be dissolv'd, I should then think myself at liberty to accept the assistance of my friends.

Thus the matter rested for some time, when I said to my partner, "Perhaps your father is dissatisfied at the part you have undertaken in this affair of ours, and is unwilling to advance for you and me what he would for you alone. If that is the case, tell me, and I will resign the whole to you, and go about my business." "No," said he, "my father has really been disappointed, and is really unable; and I am unwilling to distress him farther. I see this is a business I am not fit for. I was bred a farmer, and it was a folly in me to come to town, and put myself, at thirty years of age, an apprentice to learn a new trade. Many of our Welsh people are going to settle in North Carolina, where land is cheap. I am inclin'd to go with them, and follow my old employment. You may find friends to assist you. If you will take the debts of the company upon you; return to my father the hundred pound he has advanced; pay my little personal debts, and give me thirty pounds and a new saddle, I will relinquish the partnership, and leave the whole in your hands." I agreed to this proposal: it was drawn up in writing, sign'd, and seal'd immediately. I gave him what he demanded, and he went soon after to Carolina, from whence he sent me next year two long letters, containing the best account that had been given of that country, the climate, the soil, husbandry, etc., for in those matters he was very judicious. I printed them in the papers, and they gave great satisfaction to the publick.

As soon as he was gone, I recurr'd to my two friends; and because I would not give an unkind preference to either, I took half of what each had offered and I wanted of one, and half of the other; paid off the company's debts, and went on with the business in my own name, advertising that the

partnership was dissolved. I think this was in or about the year 1729.[1]

About this time there was a cry among the people for more paper money, only fifteen thousand pounds being extant in the province, and that soon to be sunk. The wealthy inhabitants oppos'd any addition, being against all paper currency, from an apprehension that it would depreciate, as it had done in New England, to the prejudice of all creditors. We had discuss'd this point in our Junto, where I was on the side of an addition, being persuaded that the first small sum struck in 1723 had done much good by increasing the trade, employment, and number of inhabitants in the province, since I now saw all the old houses inhabited, and many new ones building: whereas I remembered well, that when I first walk'd about the streets of Philadelphia, eating my roll, I saw most of the houses in Walnut Street, between Second and Front streets, with bills on their doors, "To be let"; and many likewise in Chestnut-street and other streets, which made me then think the inhabitants of the city were deserting it one after another.

Our debates possess'd me so fully of the subject, that I wrote and printed an anonymous pamphlet on it, entitled "*The Nature and Necessity of a Paper Currency.*" It was well receiv'd by the common people in general; but the rich men dislik'd it, for it increas'd and strengthen'd the clamor for more money, and they happening to have no writers among them that were able to answer it, their opposition slacken'd, and the point was carried by a majority in the House. My friends there, who conceiv'd I had been of some service, thought fit to reward me by employing me in print-

[1] The exact date was July 14, 1730.—Ed.

ing the money; a very profitable jobb and a great help to me. This was another advantage gain'd by my being able to write.

The utility of this currency became by time and experience so evident as never afterwards to be much disputed; so that it grew soon to fifty-five thousand pounds, and in 1739 to eighty thousand pounds, since which it arose during war to upwards of three hundred and fifty thousand pounds, trade, building, and inhabitants all the while increasing, tho' I now think there are limits beyond which the quantity may be hurtful.

I soon after obtain'd, thro' my friend Hamilton, the printing of the Newcastle paper money, another profitable jobb as I then thought it; small things appearing great to those in small circumstances; and these, to me, were really great advantages, as they were great encouragements. He procured for me, also, the printing of the laws and votes of that government, which continu'd in my hands as long as I follow'd the business.

I now open'd a little stationer's shop. I had in it blanks of all sorts, the correctest that ever appear'd among us, being assisted in that by my friend Breintnal. I had also paper, parchment, chapmen's books, etc. One Whitemash, a compositor I had known in London, an excellent workman, now came to me, and work'd with me constantly and diligently; and I took an apprentice, the son of Aquila Rose.

I began now gradually to pay off the debt I was under for the printing-house. In order to secure my credit and character as a tradesman, I took care not only to be in *reality* industrious and frugal, but to avoid all appearances to the *contrary. I drest plainly*; I was seen at no places of idle

diversion. I never went out a fishing or shooting; a book, indeed, sometimes debauch'd me from my work, but that was seldom, snug, and gave no scandal; and, to show that I was not above my business, I sometimes brought home the paper I purchas'd at the stores thro' the streets on a wheelbarrow. Thus being esteem'd an industrious, thriving young man, and paying duly for what I bought, the merchants who imported stationery solicited my custom; others proposed supplying me with books, and I went on swimmingly. In the mean time, Keimer's credit and business declining daily, he was at last forc'd to sell his printing-house to satisfy his creditors. He went to Barbadoes, and there lived some years in very poor circumstances.

His apprentice, David Harry, whom I had instructed while I work'd with him, set up in his place at Philadelphia, having bought his materials. I was at first apprehensive of a powerful rival in Harry, as his friends were very able, and had a good deal of interest. I therefore propos'd a partnership to him, which he, fortunately for me, rejected with scorn. He was very proud, dress'd like a gentleman, liv'd expensively, took much diversion and pleasure abroad, ran in debt, and neglected his business; upon which, all business left him; and, finding nothing to do, he followed Keimer to Barbadoes, taking the printing-house with him. There this apprentice employ'd his former master as a journeyman; they quarrel'd often; Harry went continually behindhand, and at length was forc'd to sell his types and return to his country work in Pensilvania. The person that bought them employ'd Keimer to use them, but in a few years he died.

There remained now no competitor with me at Philadelphia but the old one, Bradford, who was rich and easy, did

a little printing now and then by straggling hands, but was not very anxious about the business. However, as he kept the post-office, it was imagined he had better opportunities of obtaining news; his paper was thought a better distributer of advertisements than mine, and therefore had many more, which was a profitable thing to him, and a disadvantage to me; for, tho' I did indeed receive and send papers by the post, yet the publick opinion was otherwise, for what I did send was by bribing the riders, who took them privately, Bradford being unkind enough to forbid it, which occasion'd some resentment on my part; and I thought so meanly of him for it, that, when I afterward came into his situation, I took care never to imitate it.

I had hitherto continu'd to board with Godfrey, who lived in part of my house with his wife and children, and had one side of the shop for his glazier's business, tho' he worked little, being always absorbed in his mathematics. Mrs. Godfrey projected a match for me with a relation's daughter, took opportunities of bringing us often together, till a serious courtship on my part ensu'd, the girl being in herself very deserving. The old folks encourag'd me by continual invitations to supper, and by leaving us together, till at length it was time to explain. Mrs. Godfrey manag'd our little treaty. I let her know that I expected as much money with their daughter as would pay off my remaining debt for the printing-house, which I believe was not then above a hundred pounds. She brought me word they had no such sum to spare; I said they might mortgage their house in the loan-office. The answer to this, after some days, was, that they did not approve the match; that, on inquiry of Bradford, they had *been informed* the printing business was not a

profitable one; the types would soon be worn out, and more wanted; that S. Keimer and D. Harry had failed one after the other, and I should probably soon follow them; and, therefore, I was forbidden the house, and the daughter shut up.

Whether this was a real change of sentiment or only artifice, on a supposition of our being too far engaged in affection to retract, and therefore that we should steal a marriage, which would leave them at liberty to give or withhold what they pleas'd, I know not; but I suspected the latter, resented it, and went no more. Mrs. Godfrey brought me afterward some more favorable accounts of their disposition, and would have drawn me on again; but I declared absolutely my resolution to have nothing more to do with that family. This was resented by the Godfreys; we differ'd, and they removed, leaving me the whole house, and I resolved to take no more inmates.

But this affair having turned my thoughts to marriage, I look'd round me and made overtures of acquaintance in other places; but soon found that, the business of a printer being generally thought a poor one, I was not to expect money with a wife, unless with such a one as I should not otherwise think agreeable. In the mean time, that hard-to-be-governed passion of youth hurried me frequently into intrigues with low women that fell in my way, which were attended with some expense and great inconvenience, besides a continual risque to my health by a distemper which of all things I dreaded, though by great good luck I escaped it. A friendly correspondence as neighbours and old acquaintances had continued between me and Mrs. Read's family, who all had a regard for me from the time of my first lodging in their house.

I was often invited there and consulted in their affairs, wherein I sometimes was of service. I piti'd poor Miss Read's unfortunate situation, who was generally dejected, seldom chearful, and avoided company. I considered my giddiness and inconstancy when in London as in a great degree the cause of her unhappiness, tho' the mother was good enough to think the fault more her own than mine, as she had prevented our marrying before I went thither, and persuaded the other match in my absence. Our mutual affection was revived, but there were now great objections to our union. The match was indeed looked upon as invalid, a preceding wife being said to be living in England; but this could not easily be prov'd, because of the distance; and, tho' there was a report of his death, it was not certain. Then, tho' it should be true, he had left many debts, which his successor might be call'd upon to pay. We ventured, however, over all these difficulties, and I took her to wife, September 1st, 1730. None of the inconveniences happened that we had apprehended; she proved a good and faithful helpmate, assisted me much by attending the shop; we throve together, and have ever mutually endeavour'd to make each other happy. Thus I corrected that great *erratum* as well as I could.

About this time, our club meeting, not at a tavern, but in a little room of Mr. Grace's, set apart for that purpose, a proposition was made by me, that, since our books were often referr'd to in our disquisitions upon the queries, it might be convenient to us to have them altogether where we met, that upon occasion they might be consulted; and by thus clubbing our books to a common library, we should, while we lik'd to keep them together, have each of us the advantage of using the books of all the other members, which would be

nearly as beneficial as if each owned the whole. It was lik'd and agreed to, and we fill'd one end of the room with such books as we could best spare. The number was not so great as we expected; and tho' they had been of great use, yet some inconveniences occurring for want of due care of them, the collection, after about a year, was separated, and each took his books home again.

And now I set on foot my first project of a public nature, that for a subscription library. I drew up the proposals, got them put into form by our great scrivener, Brockden, and, by the help of my friends in the Junto, procured fifty subscribers of forty shillings each to begin with, and ten shillings a year for fifty years, the term our company was to continue. We afterwards obtain'd a charter, the company being increased to one hundred: this was the mother of all the North American subscription libraries, now so numerous. It is become a great thing itself, and continually increasing. These libraries have improved the general conversation of the Americans, made the common tradesmen and farmers as intelligent as most gentlemen from other countries, and perhaps have contributed in some degree to the stand so generally made throughout the colonies in defence of their privileges.

Mem°. Thus far was written with the intention express'd in the beginning and therefore contains several little family anecdotes of no importance to others. What follows was written many years after in compliance with the advice contain'd in these letters, and accordingly intended for the public. The affairs of the Revolution occasion'd the interruption.

Letter from Mr. Abel James, with Notes of my Life (received in Paris).

"MY DEAR AND HONORED FRIEND: I have often been desirous of writing to thee, but could not be reconciled to the thought, that the letter might fall into the hands of the British, lest some printer or busy-body should publish some part of the contents, and give our friend pain, and myself censure.

"Some time since there fell into my hands, to my great joy, about twenty-three sheets in thy own handwriting, containing an account of the parentage and life of thyself, directed to thy son, ending in the year 1730, with which there were notes, likewise in thy writing; a copy of which I inclose, in hopes it may be a means, if thou continued it up to a later period, that the first and latter part may be put together; and if it is not yet continued, I hope thee will not delay it. Life is uncertain, as the preacher tells us; and what will the world say if kind, humane, and benevolent Ben. Franklin should leave his friends and the world deprived of so pleasing and profitable a work; a work which would be useful and entertaining not only to a few, but to millions? The influence writings under that class have on the minds of youth is very great, and has nowhere appeared to me so plain, as in our public friend's journals. It almost insensibly leads the youth into the resolution of endeavoring to become as good and eminent as the journalist. Should thine, for instance, when published (and I think it could not fail of it), lead the youth to equal the industry and temperance of thy early youth, what a blessing with that class would such a work be! I know of no character living, nor many of them

put together, who has so much in his power as thyself to promote a greater spirit of industry and early attention to business, frugality, and temperance with the American youth. Not that I think the work would have no other merit and use in the world, far from it; but the first is of such vast importance that I know nothing that can equal it."

The foregoing letter and the minutes accompanying it being shown to a friend, I received from him the following:

Letter from Mr. Benjamin Vaughan.

"PARIS, *January* 31, 1783.

"MY DEAREST SIR: When I had read over your sheets of minutes of the principal incidents of your life, recovered for you by your Quaker acquaintance, I told you I would send you a letter expressing my reasons why I thought it would be useful to complete and publish it as he desired. Various concerns have for some time past prevented this letter being written, and I do not know whether it was worth any expectation; happening to be at leisure, however, at present, I shall by writing, at least interest and instruct myself; but as the terms I am inclined to use may tend to offend a person of your manners, I shall only tell you how I would address any other person, who was as good and as great as yourself, but less diffident. I would say to him, Sir, I solicit the history of your life from the following motives: Your history is so remarkable, that if you do not give it, somebody else will certainly give it; and perhaps so as nearly to do as much harm, as your own management of the thing might do good. It will moreover present a table

of the internal circumstances of your country, which will very much tend to invite to it settlers of virtuous and manly minds. And considering the eagerness with which such information is sought by them, and the extent of your reputation, I do not know of a more efficacious advertisement than your biography would give. All that has happened to you is also connected with the detail of the manners and situation of a rising people; and in this respect I do not think that the writings of Cæsar and Tacitus can be more interesting to a true judge of human nature and society. But these, sir, are small reasons, in my opinion, compared with the chance which your life will give for the forming of future great men; and in conjunction with your Art of Virtue (which you design to publish) of improving the features of private character, and consequently of aiding all happiness, both public and domestic. The two works I allude to, sir, will in particular give a noble rule and example of self-education. School and other education constantly proceed upon false principles, and show a clumsy apparatus pointed at a false mark; but your apparatus is simple, and the mark a true one; and while parents and young persons are left destitute of other just means of estimating and becoming prepared for a reasonable course in life, your discovery that the thing is in many a man's private power, will be invaluable! Influence upon the private character, late in life, is not only an influence late in life, but a weak influence. It is in youth that we plant our chief habits and prejudices; it is in youth that we take our party as to profession, pursuits and matrimony. In youth, therefore, the turn is given; in youth the education even of the next generation is given; in youth the private and public character is determined;

and the term of life extending but from youth to age, life ought to begin well from youth, and more especially before we take our party as to our principal objects. But your biography will not merely teach self-education, but the education of a wise man; and the wisest man will receive lights and improve his progress, by seeing detailed the conduct of another wise man. And why are weaker men to be deprived of such helps, when we see our race has been blundering on in the dark, almost without a guide in this particular, from the farthest trace of time? Show then, sir, how much is to be done, both to sons and fathers; and invite all wise men to become like yourself, and other men to become wise. When we see how cruel statesmen and warriors can be to the human race, and how absurd distinguished men can be to their acquaintance, it will be instructive to observe the instances multiply of pacific, acquiescing manners; and to find how compatible it is to be great and domestic, enviable and yet good-humoured.

"The little private incidents which you will also have to relate, will have considerable use, as we want, above all things, rules of prudence in ordinary affairs; and it will be curious to see how you have acted in these. It will be so far a sort of key to life, and explain many things that all men ought to have once explained to them, to give them a chance of becoming wise by foresight. The nearest thing to having experience of one's own, is to have other people's affairs brought before us in a shape that is interesting; this is sure to happen from your pen; our affairs and management will have an air of simplicity or importance that will not *fail to* strike; and I am convinced you have conducted them *with* as much originality as if you had been conducting

discussions in politics or philosophy; and what more worthy of experiments and system (its importance and its errors considered) than human life?

"Some men have been virtuous blindly, others have speculated fantastically, and others have been shrewd to bad purposes; but you, sir, I am sure, will give under your hand, nothing but what is at the same moment, wise, practical and good. Your account of yourself (for I suppose the parallel I am drawing for Dr. Franklin, will hold not only in point of character, but of private history) will show that you are ashamed of no origin; a thing the more important, as you prove how little necessary all origin is to happiness, virtue, or greatness. As no end likewise happens without a means, so we shall find, sir, that even you yourself framed a plan by which you became considerable; but at the same time we may see that though the event is flattering, the means are as simple as wisdom could make them; that is, depending upon nature, virtue, thought and habit. Another thing demonstrated will be the propriety of every man's waiting for his time for appearing upon the stage of the world. Our sensations being very much fixed to the moment, we are apt to forget that more moments are to follow the first, and consequently that man should arrange his conduct so as to suit the whole of a life. Your attribution appears to have been applied to your life, and the passing moments of it have been enlivened with content and enjoyment, instead of being tormented with foolish impatience or regrets. Such a conduct is easy for those who make virtue and themselves in countenance by examples of other truly great men, of whom patience is so often the characteristic. Your Quaker *correspondent, sir* (for here again I will suppose the subject

of my letter resembling Dr. Franklin), praised your frugality, diligence and temperance, which he considered as a pattern for all youth; but it is singular that he should have forgotten your modesty and your disinterestedness, without which you never could have waited for your advancement, or found your situation in the mean time comfortable; which is a strong lesson to show the poverty of glory and the importance of regulating our minds. If this correspondent had known the nature of your reputation as well as I do, he would have said, Your former writings and measures would secure attention to your Biography, and Art of Virtue; and your Biography and Art of Virtue, in return, would secure attention to them. This is an advantage attendant upon a various character, and which brings all that belongs to it into greater play; and it is the more useful, as perhaps more persons are at a loss for the means of improving their minds and characters, than they are for the time or the inclination to do it. But there is one concluding reflection, sir, that will shew the use of your life as a mere piece of biography. This style of writing seems a little gone out of vogue, and yet it is a very useful one; and your specimen of it may be particularly serviceable, as it will make a subject of comparison with the lives of various public cut-throats and intriguers, and with absurd monastic self-tormentors or vain literary triflers. If it encourages more writings of the same kind with your own, and induces more men to spend lives fit to be written, it will be worth all Plutarch's Lives put together. But being tired of figuring to myself a character of which every feature suits only one man in the world, without giving him the *praise of* it, I shall end my letter, my dear Dr. Franklin, *with* a personal application to your proper self. I am

earnestly desirous, then, my dear sir, that you should let the world into the traits of your genuine character, as civil broils may otherwise tend to disguise or traduce it. Considering your great age, the caution of your character, and your peculiar style of thinking, it is not likely that any one besides yourself can be sufficiently master of the facts of your life, or the intentions of your mind. Besides all this, the immense revolution of the present period, will necessarily turn our attention towards the author of it, and when virtuous principles have been pretended in it, it will be highly important to shew that such have really influenced; and, as your own character will be the principal one to receive a scrutiny, it is proper (even for its effects upon your vast and rising country, as well as upon England and upon Europe) that it should stand respectable and eternal. For the furtherance of human happiness, I have always maintained that it is necessary to prove that man is not even at present a vicious and detestable animal; and still more to prove that good management may greatly amend him; and it is for much the same reason, that I am anxious to see the opinion established, that there are fair characters existing among the individuals of the race; for the moment that all men, without exception, shall be conceived abandoned, good people will cease efforts deemed to be hopeless, and perhaps think of taking their share in the scramble of life, or at least of making it comfortable principally for themselves. Take then, my dear sir, this work most speedily into hand: shew yourself good as you are good; temperate as you are temperate; and above all things, prove yourself as one, who from your infancy have loved justice, liberty and concord, in a way that *has made it natural* and consistent for you to have acted, as

we have seen you act in the last seventeen years of your life. Let Englishmen be made not only to respect, but even to love you. When they think well of individuals in your native country, they will go nearer to thinking well of your country; and when your countrymen see themselves well thought of by Englishmen, they will go nearer to thinking well of England. Extend your views even further; do not stop at those who speak the English tongue, but after having settled so many points in nature and politics, think of bettering the whole race of men. As I have not read any part of the life in question, but know only the character that lived it, I write somewhat at hazard. I am sure, however, that the life and the treatise I allude to (on the Art of Virtue) will necessarily fulfil the chief of my expectations; and still more so if you take up the measure of suiting these performances to the several views above stated. Should they even prove unsuccessful in all that a sanguine admirer of yours hopes from them, you will at least have framed pieces to interest the human mind; and whoever gives a feeling of pleasure that is innocent to man, has added so much to the fair side of a life otherwise too much darkened by anxiety and too much injured by pain. In the hope, therefore, that you will listen to the prayer addressed to you in this letter, I beg to subscribe myself, my dearest sir, etc., etc.,

Signed, "BENJ. VAUGHAN."

Continuation of the Account of my Life, begun at Passy, near Paris, 1784.

It is some time since I receiv'd the above letters, but I *have* been too busy till now to think of complying with the *request* they contain. It might, too, be much better done

if I were at home among my papers, which would aid my memory, and help to ascertain dates; but my return being uncertain, and having just now a little leisure, I will endeavour to recollect and write what I can; if I live to get home, it may there be corrected and improv'd.

Not having any copy here of what is already written, I know not whether an account is given of the means I used to establish the Philadelphia public library, which, from a small beginning, is now become so considerable, though I remember to have come down to near the time of that transaction (1730). I will therefore begin here with an account of it, which may be struck out if found to have been already given.

At the time I establish'd myself in Pennsylvania, there was not a good bookseller's shop in any of the colonies to the southward of Boston. In New York and Philad'a the printers were indeed stationers; they sold only paper, etc., almanacs, ballads, and a few common school-books. Those who lov'd reading were oblig'd to send for their books from England; the members of the Junto had each a few. We had left the alehouse, where we first met, and hired a room to hold our club in. I propos'd that we should all of us bring our books to that room, where they would not only be ready to consult in our conferences, but become a common benefit, each of us being at liberty to borrow such as he wish'd to read at home. This was accordingly done, and for some time contented us.

Finding the advantage of this little collection, I propos'd to render the benefit from books more common, by commencing a public subscription library. I drew a sketch of the plan and rules that would be necessary, and got a skilful *conveyancer, Mr.* Charles Brockden, to put the whole

in form of articles of agreement to be subscribed, by which each subscriber engag'd to pay a certain sum down for the first purchase of books, and an annual contribution for increasing them. So few were the readers at that time in Philadelphia, and the majority of us so poor, that I was not able, with great industry, to find more than fifty persons, mostly young tradesmen, willing to pay down for this purpose forty shillings each, and ten shillings per annum. On this little fund we began. The books were imported; the library was opened one day in the week for lending to the subscribers, on their promissory notes to pay double the value if not duly returned. The institution soon manifested its utility, was imitated by other towns, and in other provinces. The libraries were augmented by donations; reading became fashionable; and our people, having no publick amusements to divert their attention from study, became better acquainted with books, and in a few years were observ'd by strangers to be better instructed and more intelligent than people of the same rank generally are in other countries.

When we were about to sign the above-mentioned articles, which were to be binding on us, our heirs, etc., for fifty years, Mr. Brockden, the scrivener, said to us, "You are young men, but it is scarcely probable that any of you will live to see the expiration of the term fix'd in the instrument." A number of us, however, are yet living; but the instrument was after a few years rendered null by a charter that incorporated and gave perpetuity to the company.

The objections and reluctances I met with in soliciting the subscriptions, made me soon feel the impropriety of *presenting* one's self as the proposer of any useful project, *that might* be suppos'd to raise one's reputation in the smallest

degree above that of one's neighbours, when one has need of their assistance to accomplish that project. I therefore put myself as much as I could out of sight, and stated it as a scheme of a *number of friends*, who had requested me to go about and propose it to such as they thought lovers of reading. In this way my affair went on more smoothly, and I ever after practis'd it on such occasions; and, from my frequent successes, can heartily recommend it. The present little sacrifice of your vanity will afterwards be amply repaid. If it remains a while uncertain to whom the merit belongs, some one more vain than yourself will be encouraged to claim it, and then even envy will be disposed to do you justice by plucking those assumed feathers, and restoring them to their right owner.

This library afforded me the means of improvement by constant study, for which I set apart an hour or two each day, and thus repair'd in some degree the loss of the learned education my father once intended for me. Reading was the only amusement I allow'd myself. I spent no time in taverns, games, or frolicks of any kind; and my industry in my business continu'd as indefatigable as it was necessary. I was indebted for my printing-house; I had a young family coming on to be educated, and I had to contend with for business two printers, who were established in the place before me. My circumstances, however, grew daily easier. My original habits of frugality continuing, and my father having, among his instructions to me when a boy, frequently repeated a proverb of Solomon, "Seest thou a man diligent in his calling, he shall stand before kings, he shall not stand before mean men," I from thence considered industry as a means of obtaining wealth and distinction, which encourag'd me, tho' *I did not think that* I should ever literally stand before

kings, which, however, has since happened; for I have stood before *five*, and even had the honour of sitting down with one, the King of Denmark, to dinner.

We have an English proverb that says, "*He that would thrive, must ask his wife.*" It was lucky for me that I had one as much dispos'd to industry and frugality as myself. She assisted me chearfully in my business, folding and stitching pamphlets, tending shop, purchasing old linen rags for the paper-makers, etc., etc. We kept no idle servants, our table was plain and simple, our furniture of the cheapest. For instance, my breakfast was a long time bread and milk (no tea), and I ate it out of a twopenny earthen porringer, with a pewter spoon. But mark how luxury will enter families, and make a progress, in spite of principle: being call'd one morning to breakfast, I found it in a China bowl, with a spoon of silver! They had been bought for me without my knowledge by my wife, and had cost her the enormous sum of three-and-twenty shillings, for which she had no other excuse or apology to make, but that she thought *her* husband deserv'd a silver spoon and China bowl as well as any of his neighbors. This was the first appearance of plate and China in our house, which afterward, in a course of years, as our wealth increas'd, augmented gradually to several hundred pounds in value.

I had been religiously educated as a Presbyterian; and tho' some of the dogmas of that persuasion, such as *the eternal decrees of God, election, reprobation, etc.*, appeared to me unintelligible, others doubtful, and I early absented myself from the public assemblies of the sect, Sunday being my studying day, I never was without some religious principles. I never doubted, for instance, the existence of the Deity;

that he made the world, and govern'd it by his Providence; that the most acceptable service of God was the doing good to man; that our souls are immortal; and that all crime will be punished, and virtue rewarded, either here or hereafter. These I esteem'd the essentials of every religion; and, being to be found in all the religions we had in our country, I respected them all, tho' with different degrees of respect, as I found them more or less mix'd with other articles, which, without any tendency to inspire, promote, or confirm morality, serv'd principally to divide us, and make us unfriendly to one another. This respect to all, with an opinion that the worst had some good effects, induc'd me to avoid all discourse that might tend to lessen the good opinion another might have of his own religion; and as our province increas'd in people, and new places of worship were continually wanted, and generally erected by voluntary contribution, my mite for such purpose, whatever might be the sect, was never refused.

Tho' I seldom attended any public worship, I had still an opinion of its propriety, and of its utility when rightly conducted, and I regularly paid my annual subscription for the support of the only Presbyterian minister or meeting we had in Philadelphia. He us'd to visit me sometimes as a friend, and admonish me to attend his administrations, and I was now and then prevail'd on to do so, once for five Sundays successively. Had he been in my opinion a good preacher, perhaps I might have continued, notwithstanding the occasion I had for the Sunday's leisure in my course of study; but his discourses were chiefly either polemic arguments, or explications of the peculiar doctrines of our sect, and were all to me very dry, uninteresting, and unedifying, since not a single moral principle was inculcated or enforc'd, their aim

seeming to be rather to make us Presbyterians than good citizens.

At length he took for his text that verse of the fourth chapter of Philippians, "*Finally, brethren, whatsoever things are true, honest, just, pure, lovely, or of good report, if there be any virtue, or any praise, think on these things.*" And I imagin'd, in a sermon on such a text, we could not miss of having some morality. But he confin'd himself to five points only, as meant by the apostle, viz.: 1. Keeping holy the Sabbath day. 2. Being diligent in reading the holy Scriptures. 3. Attending duly the publick worship. 4. Partaking of the Sacrament. 5. Paying a due respect to God's ministers. These might be all good things; but, as they were not the kind of good things that I expected from that text, I despaired of ever meeting with them from any other, was disgusted, and attended his preaching no more. I had some years before compos'd a little Liturgy, or form of prayer, for my own private use (viz., in 1728), entitled, *Articles of Belief and Acts of Religion.* I return'd to the use of this, and went no more to the public assemblies. My conduct might be blameable, but I leave it, without attempting further to excuse it; my present purpose being to relate facts, and not to make apologies for them.

It was about this time I conceiv'd the bold and arduous project of arriving at moral perfection. I wish'd to live without committing any fault at any time; I would conquer all that either natural inclination, custom, or company might lead me into. As I knew, or thought I knew, what was right and wrong, I did not see why I might not always do the one and avoid the other. But I soon found I had undertaken a task of more difficulty than I had imagined. While my care was employ'd in guarding against one fault, I was often sur-

prised by another; habit took the advantage of inattention; inclination was sometimes too strong for reason. I concluded, at length, that the mere speculative conviction that it was our interest to be completely virtuous, was not sufficient to prevent our slipping; and that the contrary habits must be broken, and good ones acquired and established, before we can have any dependence on a steady, uniform rectitude of conduct. For this purpose I therefore contrived the following method.

In the various enumerations of the moral virtues I had met with in my reading, I found the catalogue more or less numerous, as different writers included more or fewer ideas under the same name. Temperance, for example, was by some confined to eating and drinking, while by others it was extended to mean the moderating every other pleasure, appetite, inclination, or passion, bodily or mental, even to our avarice and ambition. I propos'd to myself, for the sake of clearness, to use rather more names, with fewer ideas annex'd to each, than a few names with more ideas; and I included under thirteen names of virtues all that at that time occurr'd to me as necessary or desirable, and annexed to each a short precept, which fully express'd the extent I gave to its meaning.

These names of virtues, with their precepts, were:

1. TEMPERANCE.

Eat not to dullness; drink not to elevation.

2. SILENCE.

Speak not but what may benefit others or yourself; avoid *trifling conversation.*

3. ORDER.

Let all your things have their places; let each part of your business have its time.

4. RESOLUTION.

Resolve to perform what you ought; perform without fail what you resolve.

5. FRUGALITY.

Make no expense but to do good to others or yourself; *i.e.*, waste nothing.

6. INDUSTRY.

Lose no time; be always employ'd in something useful; cut off all unnecessary actions.

7. SINCERITY.

Use no hurtful deceit; think innocently and justly, and, if you speak, speak accordingly.

8. JUSTICE.

Wrong none by doing injuries, or omitting the benefits that are your duty.

9. MODERATION.

Avoid extreams; forbear resenting injuries so much as you think they deserve.

10. CLEANLINESS.

Tolerate no uncleanliness in body, cloaths, or habitation.

11. TRANQUILLITY.

Be not disturbed at trifles, or at accidents common or unavoidable.

12. CHASTITY.

Rarely use venery but for health or offspring, never to dulness, weakness, or the injury of your own or another's peace or reputation.

13. HUMILITY.

Imitate Jesus and Socrates.

My intention being to acquire the *habitude* of all these virtues, I judg'd it would be well not to distract my attention by attempting the whole at once, but to fix it on one of them at a time; and, when I should be master of that, then to proceed to another, and so on, till I should have gone thro' the thirteen; and, as the previous acquisition of some might facilitate the acquisition of certain others, I arrang'd them with that view, as they stand above. Temperance first, as it tends to procure that coolness and clearness of head, which is so necessary where constant vigilance was to be kept up, and guard maintained against the unremitting attraction of ancient habits, and the force of perpetual temptations. This being acquir'd and establish'd, Silence would be more easy; and my desire being to gain knowledge at the same time that I improv'd in virtue, and considering that in conversation it was obtain'd rather by the use of the ears than of the tongue, and therefore wishing to break a habit I was getting into of prattling, punning, and joking, which only made me acceptable to trifling company, I gave *Silence* the second place. This and the next, *Order*, I expected would allow me more time for attending to my project and my studies. *Resolution*, once become habitual, would keep me firm in my endeavours to obtain all the subsequent virtues; *Frugality* and Industry freeing me from my remaining debt, and producing affluence and independence, would make more easy the practice of Sincerity and Justice, etc., etc. Conceiving then, that, agreeably to the advice of Pythagoras in his Golden Verses, daily examination would be necessary, I contrived the following method for conducting that examination.

I made a little book, in which I allotted a page for each of

the virtues.[1] I rul'd each page with red ink, so as to have seven columns, one for each day of the week, marking each column with a letter for the day. I cross'd these columns with thirteen red lines, marking the beginning of each line with the first letter of one of the virtues, on which line, and in its proper column, I might mark, by a little black spot, every fault I found upon examination to have been committed respecting that virtue upon that day.

Form of the pages.

TEMPERANCE.							
EAT NOT TO DULNESS. DRINK NOT TO ELEVATION.							
	S.	M.	T.	W.	T.	F.	S.
T.							
S.	*	*		*		*	
O.	* *	*	*		*	*	*
R.			*			*	
F.		*			*		
I.			*				
S.							
J.							
M.							
C.							
T.							
C.							
H.							

[1] This "little book" is dated July 1, 1733.—W. T. F.

I determined to give a week's strict attention to each of the virtues successively. Thus, in the first week, my great guard was to avoid every the least offence against *Temperance*, leaving the other virtues to their ordinary chance, only marking every evening the faults of the day. Thus, if in the first week I could keep my first line, marked T, clear of spots, I suppos'd the habit of that virtue so much strengthen'd, and its opposite weaken'd, that I might venture extending my attention to include the next, and for the following week keep both lines clear of spots. Proceeding thus to the last, I could go thro' a course compleat in thirteen weeks, and four courses in a year. And like him who, having a garden to weed, does not attempt to eradicate all the bad herbs at once, which would exceed his reach and his strength, but works on one of the beds at a time, and, having accomplish'd the first, proceeds to a second, so I should have, I hoped, the encouraging pleasure of seeing on my pages the progress I made in virtue, by clearing successively my lines of their spots, till in the end, by a number of courses, I should be happy in viewing a clean book, after a thirteen weeks' daily examination.

This my little book had for its motto these lines from Addison's *Cato:*

> "Here will I hold. If there's a power above us
> (And that there is, all nature cries aloud
> Thro' all her works), He must delight in virtue;
> And that which he delights in must be happy."

Another from Cicero,

"O vitæ Philosophia dux! O virtutum indagatrix expultrixque vitiorum! Unus dies, bene et ex præceptis tuis actus, peccanti immortalitati *est anteponendus.*"

Another from the Proverbs of Solomon, speaking of wisdom or virtue:

"Length of days is in her right hand, and in her left hand riches and honour. Her ways are ways of pleasantness, and all her paths are peace." iii. 16, 17.

And conceiving God to be the fountain of wisdom, I thought it right and necessary to solicit his assistance for obtaining it; to this end I formed the following little prayer, which was prefix'd to my tables of examination, for daily use.

"*O powerful Goodness! bountiful Father! merciful Guide! Increase in me that wisdom which discovers my truest interest. Strengthen my resolutions to perform what that wisdom dictates. Accept my kind offices to thy other children as the only return in my power for thy continual favours to me.*"

I used also sometimes a little prayer which I took from Thomson's Poems, viz.:

"Father of light and life, thou Good Supreme!
O teach me what is good; teach me Thyself!
Save me from folly, vanity, and vice,
From every low pursuit; and fill my soul
With knowledge, conscious peace, and virtue pure;
Sacred, substantial, never-fading bliss!"

The precept of *Order* requiring that *every part of my business should have its allotted time*, one page in my little book contain'd the following scheme of employment for the twenty-four hours of a natural day.

THE MORNING.

Question. What good shall I do this day?

5, 6, 7 — Rise, wash, and address *Powerful Goodness!* Contrive day's business, and take the resolution of the day; prosecute the present study, and breakfast.

8, 9, 10, 11 — Work.

NOON.	12 1	Read, or overlook my accounts, and dine.
	2 3 4 5	Work.
EVENING.	6	Put things in their places.
Question. What good have I done to-day?	7 8 9	Supper. Music or diversion, or conversation. Examination of the day.
NIGHT.	10 11 12 1 2 3 4	Sleep.

I enter'd upon the execution of this plan for self-examination, and continu'd it with occasional intermissions for some time. I was surpris'd to find myself so much fuller of faults than I had imagined; but I had the satisfaction of seeing them diminish. To avoid the trouble of renewing now and then my little book, which, by scraping out the marks on the paper of old faults to make room for new ones in a new course, became full of holes, I transferr'd my tables and precepts to the ivory leaves of a memorandum book, on which the lines were drawn with red ink, that made a durable stain, and on those lines I mark'd my faults with a black-lead pencil, which marks I could easily wipe out with a wet sponge. After a while I went thro' one course only in a year, and afterward only one in several years, till at length I omitted them entirely, being employ'd in voyages and business abroad, with a multiplicity of affairs that interfered; but I always carried my *little book with me.*

My scheme of ORDER gave me the most trouble; and I found that, tho' it might be practicable where a man's business was such as to leave him the disposition of his time, that of a journeyman printer, for instance, it was not possible to be exactly observed by a master, who must mix with the world, and often receive people of business at their own hours. *Order*, too, with regard to places for things, papers, etc., I found extreamly difficult to acquire. I had not been early accustomed to it, and, having an exceeding good memory, I was not so sensible of the inconvenience attending want of method. This article, therefore, cost me so much painful attention, and my faults in it vexed me so much, and I made so little progress in amendment, and had such frequent relapses, that I was almost ready to give up the attempt, and content myself with a faulty character in that respect, like the man who, in buying an ax of a smith, my neighbour, desired to have the whole of its surface as bright as the edge. The smith consented to grind it bright for him if he would turn the wheel; he turn'd, while the smith press'd the broad face of the ax hard and heavily on the stone, which made the turning of it very fatiguing. The man came every now and then from the wheel to see how the work went on, and at length would take his ax as it was, without farther grinding. "No," said the smith, "turn on, turn on; we shall have it bright by-and-by; as yet, it is only speckled." "Yes," says the man, "*but I think I like a speckled ax best.*" And I believe this may have been the case with many, who, having, for want of some such means as I employ'd, found the difficulty of obtaining good and breaking bad habits in other *points* of vice and virtue, have given up the struggle, and *concluded* that "*a speckled ax was best*"; for something,

that pretended to be reason, was every now and then suggesting to me that such extream nicety as I exacted of myself might be a kind of foppery in morals, which, if it were known, would make me ridiculous; that a perfect character might be attended with the inconvenience of being envied and hated; and that a benevolent man should allow a few faults in himself, to keep his friends in countenance.

In truth, I found myself incorrigible with respect to Order; and now I am grown old, and my memory bad, I feel very sensibly the want of it. But, on the whole, tho' I never arrived at the perfection I had been so ambitious of obtaining, but fell far short of it, yet I was, by the endeavour, a better and a happier man than I otherwise should have been if I had not attempted it; as those who aim at perfect writing by imitating the engraved copies, tho' they never reach the wish'd-for excellence of those copies, their hand is mended by the endeavour, and is tolerable while it continues fair and legible.

It may be well my posterity should be informed that to this little artifice, with the blessing of God, their ancestor ow'd the constant felicity of his life, down to his 79th year in which this is written. What reverses may attend the remainder is in the hand of Providence; but, if they arrive, the reflection on past happiness enjoy'd ought to help his bearing them with more resignation. To Temperance he ascribes his long-continued health, and what is still left to him of a good constitution; to Industry and Frugality, the early easiness of his circumstances and acquisition of his fortune, with all that knowledge that enabled him to be a useful citizen, and obtained for him some degree of reputation *among the learned*; to Sincerity and Justice, the con-

fidence of his country, and the honorable employs it conferred upon him; and to the joint influence of the whole mass of the virtues, even in the imperfect state he was able to acquire them, all that evenness of temper, and that cheerfulness in conversation, which makes his company still sought for, and agreeable even to his younger acquaintance. I hope, therefore, that some of my descendants may follow the example and reap the benefit.

It will be remark'd that, tho' my scheme was not wholly without religion, there was in it no mark of any of the distinguishing tenets of any particular sect. I had purposely avoided them; for, being fully persuaded of the utility and excellency of my method, and that it might be serviceable to people in all religions, and intending some time or other to publish it, I would not have any thing in it that should prejudice any one, of any sect, against it. I purposed writing a little comment on each virtue, in which I would have shown the advantages of possessing it, and the mischiefs attending its opposite vice; and I should have called my book THE ART OF VIRTUE,[1] because it would have shown the means and manner of obtaining virtue, which would have distinguished it from the mere exhortation to be good, that does not instruct and indicate the means, but is like the apostle's man of verbal charity, who only without showing to the naked and hungry how or where they might get clothes or victuals, exhorted them to be fed and clothed. — James ii. 15, 16.

But it so happened that my intention of writing and publishing this comment was never fulfilled. I did, indeed, from time to time, put down short hints of the sentiments, reasonings, etc., to be made use of in it, some of which I have still

[1] Nothing so likely to make a man's fortune as virtue.— Marg. note.

by me; but the necessary close attention to private business in the earlier part of my life, and public business since, have occasioned my postponing it; for, it being connected in my mind with *a great and extensive project*, that required the whole man to execute, and which an unforeseen succession of employs prevented my attending to, it has hitherto remain'd unfinish'd.

In this piece it was my design to explain and enforce this doctrine, that vicious actions are not hurtful because they are forbidden, but forbidden because they are hurtful, the nature of man alone considered; that it was, therefore, every one's interest to be virtuous who wish'd to be happy even in this world; and I should, from this circumstance (there being always in the world a number of rich merchants, nobility, states, and princes, who have need of honest instruments for the management of their affairs, and such being so rare), have endeavoured to convince young persons that no qualities were so likely to make a poor man's fortune as those of probity and integrity.

My list of virtues contain'd at first but twelve; but a Quaker friend having kindly informed me that I was generally thought proud; that my pride show'd itself frequently in conversation; that I was not content with being in the right when discussing any point, but was overbearing, and rather insolent, of which he convinc'd me by mentioning several instances; I determined endeavouring to cure myself, if I could, of this vice or folly among the rest, and I added *Humility* to my list, giving an extensive meaning to the word.

I cannot boast of much success in acquiring the *reality* of this virtue, but I had a good deal with regard to the *appearance of it. I made it* a rule to forbear all direct contradiction

to the sentiments of others, and all positive assertion of my own. I even forbid myself, agreeably to the old laws of our Junto, the use of every word or expression in the language that imported a fix'd opinion, such as *certainly*, *undoubtedly*, etc., and I adopted, instead of them, *I conceive*, *I apprehend*, or *I imagine* a thing to be so or so; or it *so appears to me at present*. When another asserted something that I thought an error, I deny'd myself the pleasure of contradicting him abruptly, and of showing immediately some absurdity in his proposition; and in answering I began by observing that in certain cases or circumstances his opinion would be right, but in the present case there *appear'd* or *seem'd* to me some difference, etc. I soon found the advantage of this change in my manner; the conversations I engag'd in went on more pleasantly. The modest way in which I propos'd my opinions procur'd them a readier reception and less contradiction; I had less mortification when I was found to be in the wrong, and I more easily prevail'd with others to give up their mistakes and join with me when I happened to be in the right.

And this mode, which I at first put on with some violence to natural inclination, became at length so easy, and so habitual to me, that perhaps for these fifty years past no one has ever heard a dogmatical expression escape me. And to this habit (after my character of integrity) I think it principally owing that I had early so much weight with my fellow-citizens when I proposed new institutions, or alterations in the old, and so much influence in public councils when I became a member; for I was but a bad speaker, never eloquent, subject to much hesitation in my choice of words, hardly correct in language, and yet I generally carried my *points*.

In reality, there is, perhaps, no one of our natural passions so hard to subdue as *pride.* Disguise it, struggle with it, beat it down, stifle it, mortify it as much as one pleases, it is still alive, and will every now and then peep out and show itself; you will see it, perhaps, often in this history; for, even if I could conceive that I had compleatly overcome it, I should probably be proud of my humility.

[Thus far written at Passy, 1784.]

["*I am now about to write at home, August,* 1788, *but can not have the help expected from my papers, many of them being lost in the war. I have, however, found the following.*"][1]

HAVING mentioned *a great and extensive project* which I had conceiv'd, it seems proper that some account should be here given of that project and its object. Its first rise in my mind appears in the following little paper, accidentally preserv'd, viz.:

Observations on my reading history, in Library, May 19th, 1731.

"That the great affairs of the world, the wars, revolutions, etc., are carried on and affected by parties.

"That the view of these parties is their present general interest, or what they take to be such.

"That the different views of these different parties occasion all confusion.

"That while a party is carrying on a general design, each man has his particular private interest in view.

"That as soon as a party has gain'd its general point, each member becomes intent upon his particular interest;

[1] *This is* a marginal memorandum.—B.

which, thwarting others, breaks that party into divisions, and occasions more confusion.

"That few in public affairs act from a meer view of the good of their country, whatever they may pretend; and, tho' their actings bring real good to their country, yet men primarily considered that their own and their country's interest was united, and did not act from a principle of benevolence.

"That fewer still, in public affairs, act with a view to the good of mankind.

"There seems to me at present to be great occasion for raising a United Party for Virtue, by forming the virtuous and good men of all nations into a regular body, to be govern'd by suitable good and wise rules, which good and wise men may probably be more unanimous in their obedience to, than common people are to common laws.

"I at present think that whoever attempts this aright, and is well qualified, can not fail of pleasing God, and of meeting with success. B. F."

Revolving this project in my mind, as to be undertaken hereafter, when my circumstances should afford me the necessary leisure, I put down from time to time, on pieces of paper, such thoughts as occurr'd to me respecting it. Most of these are lost; but I find one purporting to be the substance of an intended creed, containing, as I thought, the essentials of every known religion, and being free of every thing that might shock the professors of any religion. It is express'd in these words, viz.:

"That there is one God, who made all things.

"That he governs the world by his providence.

"That he ought to be worshiped by adoration, prayer, and thanksgiving.

"But that the most acceptable service of God is doing good to man.

"That the soul is immortal.

"And that God will certainly reward virtue and punish vice, either here or hereafter." [1]

My ideas at that time were, that the sect should be begun and spread at first among young and single men only; that each person to be initiated should not only declare his assent to such creed, but should have exercised himself with the thirteen weeks' examination and practice of the virtues, as in the before-mention'd model; that the existence of such a society should be kept a secret, till it was become considerable, to prevent solicitations for the admission of improper persons, but that the members should each of them search among his acquaintance for ingenuous, well-disposed youths, to whom, with prudent caution, the scheme should be gradually communicated; that the members should engage to afford their advice, assistance, and support to each other in promoting one another's interests, business, and advancement in life; that, for distinction, we should be call'd *The Society of the Free and Easy:* free, as being, by the general practice and habit of the virtues, free from the dominion of vice; and particularly by the practice of industry and frugality, free from debt, which exposes a man to confinement, and a species of slavery to his creditors.

This is as much as I can now recollect of the project, except that I communicated it in part to two young men, who adopted it with some enthusiasm; but my then nar-

[1] In the Middle Ages, Franklin, if such a phenomenon as Franklin were possible in the Middle Ages, would probably have been the founder of a *monastic order.* — *B.*

row circumstances, and the necessity I was under of sticking close to my business, occasion'd my postponing the further prosecution of it at that time; and my multifarious occupations, public and private, induc'd me to continue postponing, so that it has been omitted till I have no longer strength or activity left sufficient for such an enterprise; tho' I am still of opinion that it was a practicable scheme, and might have been very useful, by forming a great number of good citizens; and I was not discourag'd by the seeming magnitude of the undertaking, as I have always thought that one man of tolerable abilities may work great changes, and accomplish great affairs among mankind, if he first forms a good plan, and, cutting off all amusements or other employments that would divert his attention, makes the execution of that same plan his sole study and business.

In 1732 I first publish'd my Almanack, under the name of *Richard Saunders;* it was continu'd by me about twenty-five years, commonly call'd *Poor Richard's Almanack.* I endeavour'd to make it both entertaining and useful, and it accordingly came to be in such demand, that I reap'd considerable profit from it, vending annually near ten thousand. And observing that it was generally read, scarce any neighborhood in the province being without it, I consider'd it as a proper vehicle for conveying instruction among the common people, who bought scarcely any other books; I therefore filled all the little spaces that occurr'd between the remarkable days in the calendar with proverbial sentences, chiefly such as inculcated industry and frugality, as the means of procuring wealth, and thereby securing virtue; it being more difficult for a man in want, to act always honestly, as,

to use here one of those proverbs, *it is hard for an empty sack to stand upright.*

These proverbs, which contained the wisdom of many ages and nations, I assembled and form'd into a connected discourse prefix'd to the Almanack of 1757, as the harangue of a wise old man to the people attending an auction. The bringing all these scatter'd counsels thus into a focus enabled them to make greater impression. The piece, being universally approved, was copied in all the newspapers of the Continent; reprinted in Britain on a broad side, to be stuck up in houses; two translations were made of it in French, and great numbers bought by the clergy and gentry, to distribute gratis among their poor parishioners and tenants. In Pennsylvania, as it discouraged useless expense in foreign superfluities, some thought it had its share of influence in producing that growing plenty of money which was observable for several years after its publication.

I considered my newspaper, also, as another means of communicating instruction, and in that view frequently reprinted in it extracts from the Spectator, and other moral writers; and sometimes publish'd little pieces of my own, which had been first compos'd for reading in our Junto. Of these are a Socratic dialogue, tending to prove that, whatever might be his parts and abilities, a vicious man could not properly be called a man of sense; and a discourse on self-denial, showing that virtue was not secure till its practice became a habitude, and was free from the opposition of contrary inclinations. These may be found in the papers about the beginning of 1735.[1]

In the conduct of my newspaper, I carefully excluded all

[1] *June 23* and July 7, 1730.—Ed.

libelling and personal abuse, which is of late years become so disgraceful to our country. Whenever I was solicited to insert any thing of that kind, and the writers pleaded, as they generally did, the liberty of the press, and that a newspaper was like a stage-coach, in which any one who would pay had a right to a place, my answer was, that I would print the piece separately if desired, and the author might have as many copies as he pleased to distribute himself, but that I would not take upon me to spread his detraction; and that, having contracted with my subscribers to furnish them with what might be either useful or entertaining, I could not fill their papers with private altercation, in which they had no concern, without doing them manifest injustice. Now, many of our printers make no scruple of gratifying the malice of individuals by false accusations of the fairest characters among ourselves, augmenting animosity even to the producing of duels; and are, moreover, so indiscreet as to print scurrilous reflections on the government of neighboring states, and even on the conduct of our best national allies, which may be attended with the most pernicious consequences. These things I mention as a caution to young printers, and that they may be encouraged not to pollute their presses and disgrace their profession by such infamous practices, but refuse steadily, as they may see by my example that such a course of conduct will not, on the whole, be injurious to their interests.

In 1733 I sent one of my journeymen to Charleston, South Carolina, where a printer was wanting. I furnish'd him with a press and letters, on an agreement of partnership, by which I was to receive one-third of the profits of the business, paying one-third of the expense. He was a man of

learning, and honest but ignorant in matters of account; and, tho' he sometimes made me remittances, I could get no account from him, nor any satisfactory state of our partnership while he lived. On his decease, the business was continued by his widow, who, being born and bred in Holland, where, as I have been inform'd, the knowledge of accounts makes a part of female education, she not only sent me as clear a state as she could find of the transactions past, but continued to account with the greatest regularity and exactness every quarter afterwards, and managed the business with such success, that she not only brought up reputably a family of children, but, at the expiration of the term, was able to purchase of me the printing-house, and establish her son in it.

I mention this affair chiefly for the sake of recommending that branch of education for our young females, as likely to be of more use to them and their children, in case of widowhood, than either music or dancing, by preserving them from losses by imposition of crafty men, and enabling them to continue, perhaps, a profitable mercantile house, with establish'd correspondence, till a son is grown up fit to undertake and go on with it, to the lasting advantage and enriching of the family.

About the year 1734 there arrived among us from Ireland a young Presbyterian preacher, named Hemphill, who delivered with a good voice, and apparently extempore, most excellent discourses, which drew together considerable numbers of different persuasions, who join'd in admiring them. Among the rest, I became one of his constant hearers, his sermons pleasing me, as they had little of the dogmatical kind, *but inculcated* strongly the practice of virtue, or what

in the religious stile are called good works. Those, however, of our congregation, who considered themselves as orthodox Presbyterians, disapprov'd his doctrine, and were join'd by most of the old clergy, who arraign'd him of heterodoxy before the synod, in order to have him silenc'd. I became his zealous partisan, and contributed all I could to raise a party in his favour, and we combated for him a while with some hopes of success. There was much scribbling pro and con upon the occasion; and finding that, tho' an elegant preacher, he was but a poor writer, I lent him my pen and wrote for him two or three pamphlets, and one piece in the Gazette of April, 1735. Those pamphlets, as is generally the case with controversial writings, tho' eagerly read at the time, were soon out of vogue, and I question whether a single copy of them now exists.[1]

During the contest an unlucky occurrence hurt his cause exceedingly. One of our adversaries having heard him preach a sermon that was much admired, thought he had somewhere read the sermon before, or at least a part of it. On search, he found that part quoted at length, in one of the British Reviews, from a discourse of Dr Foster's.[2] This detection gave many of our party disgust, who accordingly abandoned his cause, and occasion'd our more speedy discomfiture in the synod. I stuck by him, however, as I rather

[1] See "A List of Books written by, or relating to Benjamin Franklin," by Paul Leicester Ford. 1889. p. 15.

[2] Dr. James Foster (1697–1753): —

> "Let modest Foster, if he will excel
> Ten metropolitans in preaching well."
> — POPE (Epilogue to the Satires, I, 132).

"Those who had not heard Farinelli sing and Foster preach were not qualified to appear in genteel company," Hawkins. "History of Music." — ED.

approv'd his giving us good sermons compos'd by others, than bad ones of his own manufacture, tho' the latter was the practice of our common teachers. He afterward acknowledg'd to me that none of those he preach'd were his own; adding, that his memory was such as enabled him to retain and repeat any sermon after one reading only. On our defeat, he left us in search elsewhere of better fortune, and I quitted the congregation, never joining it after, tho' I continu'd many years my subscription for the support of its ministers.

I had begun in 1733 to study languages; I soon made myself so much a master of the French as to be able to read the books with ease. I then undertook the Italian. An acquaintance, who was also learning it, us'd often to tempt me to play chess with him. Finding this took up too much of the time I had to spare for study, I at length refus'd to play any more, unless on this condition, that the victor in every game should have a right to impose a task, either in parts of the grammar to be got by heart, or in translations, etc., which tasks the vanquish'd was to perform upon honour, before our next meeting. As we play'd pretty equally, we thus beat one another into that language. I afterwards with a little painstaking, acquir'd as much of the Spanish as to read their books also.

I have already mention'd that I had only one year's instruction in a Latin school, and that when very young, after which I neglected that language entirely. But, when I had attained an acquaintance with the French, Italian, and Spanish, I was surpriz'd to find, on looking over a Latin Testament, that I understood so much more of that language *than I had imagined,* which encouraged me to apply myself

again to the study of it, and I met with more success, as those preceding languages had greatly smooth'd my way.

From these circumstances, I have thought that there is some inconsistency in our common mode of teaching languages. We are told that it is proper to begin first with the Latin, and, having acquir'd that, it will be more easy to attain those modern languages which are deriv'd from it; and yet we do not begin with the Greek, in order more easily to acquire the Latin. It is true that, if you can clamber and get to the top of a staircase without using the steps, you will more easily gain them in descending; but certainly, if you begin with the lowest you will with more ease ascend to the top; and I would therefore offer it to the consideration of those who superintend the education of our youth, whether, since many of those who begin with the Latin quit the same after spending some years without having made any great proficiency, and what they have learnt becomes almost useless, so that their time has been lost, it would not have been better to have begun with the French, proceeding to the Italian, etc.; for, tho', after spending the same time, they should quit the study of languages and never arrive at the Latin, they would, however, have acquired another tongue or two, that, being in modern use, might be serviceable to them in common life.

After ten years' absence from Boston, and having become easy in my circumstances, I made a journey thither to visit my relations, which I could not sooner well afford. In returning, I call'd at Newport to see my brother, then settled there with his printing-house. Our former differences were forgotten, and our meeting was very cordial and affectionate. He was fast declining in his health, and requested of me that,

in case of his death, which he apprehended not far distant, I would take home his son, then but ten years of age, and bring him up to the printing business. This I accordingly perform'd, sending him a few years to school before I took him into the office. His mother carried on the business till he was grown up, when I assisted him with an assortment of new types, those of his father being in a manner worn out. Thus it was that I made my brother ample amends for the service I had depriv'd him of by leaving him so early.

In 1736 I lost one of my sons, a fine boy of four years old, by the small-pox, taken in the common way. I long regretted bitterly, and still regret that I had not given it to him by inoculation. This I mention for the sake of parents who omit that operation, on the supposition that they should never forgive themselves if a child died under it; my example showing that the regret may be the same either way, and that, therefore, the safer should be chosen.

Our club, the Junto, was found so useful, and afforded such satisfaction to the members, that several were desirous of introducing their friends, which could not well be done without exceeding what we had settled as a convenient number, viz., twelve. We had from the beginning made it a rule to keep our institution a secret, which was pretty well observ'd; the intention was to avoid applications of improper persons for admittance, some of whom, perhaps, we might find it difficult to refuse. I was one of those who were against any addition to our number, but, instead of it, made in writing a proposal, that every member separately should endeavour to form a subordinate club, with the same rules respecting queries, etc., and without informing them of the connection with the Junto. The advantages proposed were,

the improvement of so many more young citizens by the use of our institutions; our better acquaintance with the general sentiments of the inhabitants on any occasion, as the Junto member might propose what queries we should desire, and was to report to the Junto what pass'd in his separate club; the promotion of our particular interests in business by more extensive recommendation, and the increase of our influence in public affairs, and our power of doing good by spreading thro' the several clubs the sentiments of the Junto.

The project was approv'd, and every member undertook to form his club, but they did not all succeed. Five or six only were compleated, which were called by different names, as the Vine, the Union, the Band, etc. They were useful to themselves, and afforded us a good deal of amusement, information, and instruction, besides answering, in some considerable degree, our views of influencing the public opinion on particular occasions, of which I shall give some instances in course of time as they happened.

My first promotion was my being chosen, in 1736, clerk of the General Assembly. The choice was made that year without opposition; but the year following, when I was again propos'd (the choice, like that of the members, being annual), a new member made a long speech against me, in order to favour some other candidate. I was, however, chosen, which was the more agreeable to me, as, besides the pay for the immediate service as clerk, the place gave me a better opportunity of keeping up an interest among the members, which secur'd to me the business of printing the votes, laws, paper money, and other occasional jobbs for the public, that, on the whole, were very profitable.

I therefore did not like the opposition of this new member, who was a gentleman of fortune and education, with talents that were likely to give him, in time, great influence in the House, which, indeed, afterwards happened. I did not, however, aim at gaining his favour by paying any servile respect to him, but, after some time, took this other method. Having heard that he had in his library a certain very scarce and curious book, I wrote a note to him, expressing my desire of perusing that book, and requesting he would do me the favour of lending it to me for a few days. He sent it immediately, and I return'd it in about a week with another note, expressing strongly my sense of the favour. When we next met in the House, he spoke to me (which he had never done before), and with great civility; and he ever after manifested a readiness to serve me on all occasions, so that we became great friends, and our friendship continued to his death. This is another instance of the truth of an old maxim I had learned, which says, "*He that has once done you a kindness will be more ready to do you another, than he whom you yourself have obliged.*" And it shows how much more profitable it is prudently to remove, than to resent, return, and continue inimical proceedings.

In 1737, Colonel Spotswood, late governor of Virginia, and then postmaster-general, being dissatisfied with the conduct of his deputy at Philadelphia, respecting some negligence in rendering, and inexactitude of his accounts, took from him the commission and offered it to me. I accepted it readily, and found it of great advantage; for, tho' the salary was small, it facilitated the correspondence that improv'd my newspaper, increas'd the number demanded, as well as the advertisements to be inserted, so that it came

to afford me a considerable income. My old competitor's newspaper declin'd proportionably, and I was satisfy'd without retaliating his refusal, while postmaster, to permit my papers being carried by the riders. Thus he suffer'd greatly from his neglect in due accounting; and I mention it as a lesson to those young men who may be employ'd in managing affairs for others, that they should always render accounts, and make remittances, with great clearness and punctuality. The character of observing such a conduct is the most powerful of all recommendations to new employments and increase of business.

I began now to turn my thoughts a little to public affairs, beginning, however, with small matters. The city watch was one of the first things that I conceiv'd to want regulation. It was managed by the constables of the respective wards in turn; the constable warned a number of housekeepers to attend him for the night. Those who chose never to attend, paid him six shillings a year to be excus'd, which was suppos'd to be for hiring substitutes, but was, in reality, much more than was necessary for that purpose, and made the constableship a place of profit; and the constable, for a little drink, often got such ragamuffins about him as a watch, that respectable housekeepers did not choose to mix with. Walking the rounds, too, was often neglected, and most of the nights spent in tippling. I thereupon wrote a paper to be read in Junto, representing these irregularities, but insisting more particularly on the inequality of this six-shilling tax of the constables, respecting the circumstances of those who paid it, since a poor widow housekeeper, all whose property to be guarded by the watch did not perhaps exceed the value of fifty pounds, paid as much as the

wealthiest merchant, who had thousands of pounds' worth of goods in his stores.

On the whole, I proposed as a more effectual watch, the hiring of proper men to serve constantly in that business; and as a more equitable way of supporting the charge, the levying a tax that should be proportion'd to the property. This idea, being approv'd by the Junto, was communicated to the other clubs, but as arising in each of them; and though the plan was not immediately carried into execution, yet, by preparing the minds of people for the change, it paved the way for the law obtained a few years after, when the members of our clubs were grown into more influence.

About this time I wrote a paper (first to be read in Junto, but it was afterward publish'd) on the different accidents and carelessnesses by which houses were set on fire, with cautions against them, and means proposed of avoiding them. This was much spoken of as a useful piece, and gave rise to a project, which soon followed it, of forming a company for the more ready extinguishing of fires, and mutual assistance in removing and securing of goods when in danger. Associates in this scheme were presently found, amounting to thirty. Our articles of agreement oblig'd every member to keep always in good order, and fit for use, a certain number of leather buckets, with strong bags and baskets (for packing and transporting of goods), which were to be brought to every fire; and we agreed to meet once a month and spend a social evening together, in discoursing and communicating such ideas as occurred to us upon the subject of fires, as might be useful in our conduct on such occasions.

The utility of this institution soon appeared, and many more desiring to be admitted than we thought convenient

for one company, they were advised to form another, which was accordingly done; and this went on, one new company being formed after another, till they became so numerous as to include most of the inhabitants who were men of property; and now, at the time of my writing this, tho' upward of fifty years since its establishment, that which I first formed, called the Union Fire Company, still subsists and flourishes,[1] tho' the first members are all deceas'd but myself and one, who is older by a year than I am. The small fines that have been paid by members for absence at the monthly meetings have been apply'd to the purchase of fire-engines, ladders, fire-hooks, and other useful implements for each company, so that I question whether there is a city in the world better provided with the means of putting a stop to beginning conflagrations; and, in fact, since these institutions, the city has never lost by fire more than one or two houses at a time, and the flames have often been extinguished before the house in which they began has been half consumed.

In 1739 arrived among us from Ireland the Reverend Mr. Whitefield, who had made himself remarkable there as an itinerant preacher. He was at first permitted to preach in some of our churches; but the clergy, taking a dislike to him, soon refus'd him their pulpits, and he was oblig'd to preach in the fields. The multitudes of all sects and denominations that attended his sermons were enormous, and it was matter of speculation to me, who was one of the number, to observe the extraordinary influence of his oratory on his hearers, and how much they admir'd and respected him, notwithstanding his common abuse of them, by assuring them they were naturally *half beasts and half devils.* It

[1] It was formed December 7, 1736. — ED.

was wonderful to see the change soon made in the manners of our inhabitants. From being thoughtless or indifferent about religion, it seem'd as if all the world were growing religious, so that one could not walk thro' the town in an evening without hearing psalms sung in different families of every street.

And it being found inconvenient to assemble in the open air, subject to its inclemencies, the building of a house to meet in was no sooner propos'd, and persons appointed to receive contributions, but sufficient sums were soon receiv'd to procure the ground and erect the building, which was one hundred feet long and seventy broad, about the size of Westminster Hall; and the work was carried on with such spirit as to be finished in a much shorter time than could have been expected. Both house and ground were vested in trustees, expressly for the use of any preacher of any religious persuasion who might desire to say something to the people at Philadelphia; the design in building not being to accommodate any particular sect, but the inhabitants in general; so that even if the Mufti of Constantinople were to send a missionary to preach Mohammedanism to us, he would find a pulpit at his service.

Mr. Whitefield, in leaving us, went preaching all the way thro' the colonies to Georgia. The settlement of that province had lately been begun, but, instead of being made with hardy, industrious husbandmen, accustomed to labour, the only people fit for such an enterprise, it was with families of broken shop-keepers and other insolvent debtors, many of indolent and idle habits, taken out of the jails, who, being set down in the woods, unqualified for clearing land, and unable to endure the hardships of a new settlement, perished

in numbers, leaving many helpless children unprovided for. The sight of their miserable situation inspir'd the benevolent heart of Mr. Whitefield with the idea of building an Orphan House there, in which they might be supported and educated. Returning northward, he preach'd up this charity, and made large collections, for his eloquence had a wonderful power over the hearts and purses of his hearers, of which I myself was an instance.

I did not disapprove of the design, but, as Georgia was then destitute of materials and workmen, and it was proposed to send them from Philadelphia at a great expense, I thought it would have been better to have built the house here, and brought the children to it. This I advis'd; but he was resolute in his first project, rejected my counsel, and I therefore refus'd to contribute. I happened soon after to attend one of his sermons, in the course of which I perceived he intended to finish with a collection, and I silently resolved he should get nothing from me. I had in my pocket a handful of copper money, three or four silver dollars, and five pistoles in gold. As he proceeded I began to soften, and concluded to give the coppers. Another stroke of his oratory made me asham'd of that, and determin'd me to give the silver; and he finish'd so admirably, that I empty'd my pocket wholly into the collector's dish, gold and all. At this sermon there was also one of our club, who, being of my sentiments respecting the building in Georgia, and suspecting a collection might be intended, had, by precaution, emptied his pockets before he came from home. Towards the conclusion of the discourse, however, he felt a strong desire to give, and apply'd to a neighbour, who stood near him, to borrow some money for the purpose. The applica-

tion was unfortunately [made] to perhaps the only man in the company who had the firmness not to be affected by the preacher. His answer was, "*At any other time, Friend Hopkinson, I would lend to thee freely; but not now, for thee seems to be out of thy right senses.*"

Some of Mr. Whitefield's enemies affected to suppose that he would apply these collections to his own private emolument; but I, who was intimately acquainted with him (being employed in printing his Sermons and Journals, etc.), never had the least suspicion of his integrity, but am to this day decidedly of opinion that he was in all his conduct a perfectly *honest man;* and methinks my testimony in his favour ought to have the more weight, as we had no religious connection. He us'd, indeed, sometimes to pray for my conversion, but never had the satisfaction of believing that his prayers were heard. Ours was a mere civil friendship, sincere on both sides, and lasted to his death.

The following instance will show something of the terms on which we stood. Upon one of his arrivals from England at Boston, he wrote to me that he should come soon to Philadelphia, but knew not where he could lodge when there, as he understood his old friend and host, Mr. Benezet[1] was removed to Germantown. My answer was, "You know my house; if you can make shift with its scanty accommodations, you will be most heartily welcome." He reply'd, that if I made that kind offer for Christ's sake, I should not miss of a reward. And I returned, "*Don't let me be mistaken; it was not for Christ's sake, but for your sake.*" One

[1] Anthony Benezet (1713–1784), devoted himself in Philadelphia to the abolition of the slave trade and the emancipation and education of the coloured population. — ED.

of our common acquaintance jocosely remark'd, that, knowing it to be the custom of the saints, when they received any favour, to shift the burden of the obligation from off their own shoulders, and place it in heaven, I had contriv'd to fix it on earth.

The last time I saw Mr. Whitefield was in London, when he consulted me about his Orphan House concern, and his purpose of appropriating it to the establishment of a college.

He had a loud and clear voice, and articulated his words and sentences so perfectly, that he might be heard and understood at a great distance, especially as his auditories, however numerous, observ'd the most exact silence. He preach'd one evening from the top of the Court-house steps, which are in the middle of Market-street, and on the west side of Second-street, which crosses it at right angles. Both streets were fill'd with his hearers to a considerable distance. Being among the hindmost in Market-street, I had the curiosity to learn how far he could be heard, by retiring backwards down the street towards the river; and I found his voice distinct till I came near Front-street, when some noise in that street obscur'd it. Imagining then a semicircle, of which my distance should be the radius, and that it were fill'd with auditors, to each of whom I allow'd two square feet, I computed that he might well be heard by more than thirty thousand. This reconcil'd me to the newspaper accounts of his having preach'd to twenty-five thousand people in the fields, and to the antient histories of generals haranguing whole armies, of which I had sometimes doubted.

By hearing him often, I came to distinguish easily between sermons newly compos'd, and those which he had often *preach'd* in the course of his travels. His delivery of the

latter was so improv'd by frequent repetitions that every accent, every emphasis, every modulation of voice, was so perfectly well turn'd and well plac'd, that, without being interested in the subject, one could not help being pleas'd with the discourse; a pleasure of much the same kind with that receiv'd from an excellent piece of musick. This is an advantage itinerant preachers have over those who are stationary, as the latter can not well improve their delivery of a sermon by so many rehearsals.

His writing and printing from time to time gave great advantage to his enemies; unguarded expressions, and even erroneous opinions, delivered in preaching, might have been afterwards explain'd or qualifi'd by supposing others that might have accompani'd them, or they might have been deny'd; but *litera scripta manet.* Critics attack'd his writings violently, and with so much appearance of reason as to diminish the number of his votaries and prevent their encrease; so that I am of opinion if he had never written any thing, he would have left behind him a much more numerous and important sect, and his reputation might in that case have been still growing, even after his death, as there being nothing of his writing on which to found a censure and give him a lower character, his proselytes would be left at liberty to feign for him as great a variety of excellences as their enthusiastic admiration might wish him to have possessed.

My business was now continually augmenting, and my circumstances growing daily easier, my newspaper having become very profitable, as being for a time almost the only one in this and the neighbouring provinces. I experienced, too, the truth of the observation, "*that* after getting the first

hundred pound, it is more easy to get the second," money itself being of a prolific nature.

The partnership at Carolina having succeeded, I was encourag'd to engage in others, and to promote several of my workmen, who had behaved well, by establishing them with printing-houses in different colonies, on the same terms with that in Carolina. Most of them did well, being enabled at the end of our term, six years, to purchase the types of me and go on working for themselves, by which means several families were raised. Partnerships often finish in quarrels; but I was happy in this, that mine were all carried on and ended amicably, owing, I think, a good deal to the precaution of having very explicitly settled, in our articles, every thing to be done by or expected from each partner, so that there was nothing to dispute, which precaution I would therefore recommend to all who enter into partnerships; for, whatever esteem partners may have for, and confidence in each other at the time of the contract, little jealousies and disgusts may arise, with ideas of inequality in the care and burden of the business, etc., which are attended often with breach of friendship and of the connection, perhaps with lawsuits and other disagreeable consequences.

I had, on the whole, abundant reason to be satisfied with my being established in Pennsylvania. There were, however, two things that I regretted, there being no provision for defense, nor for a compleat education of youth; no militia, nor any college. I therefore, in 1743, drew up a proposal for establishing an academy; and at that time, thinking the Reverend Mr. Peters, who was out of employ, a fit person to superintend such an institution, I communicated the project to him; but he, having more profitable

views in the service of the proprietaries, which succeeded, declin'd the undertaking; and, not knowing another at that time suitable for such a trust, I let the scheme lie a while dormant. I succeeded better the next year, 1744, in proposing and establishing a Philosophical Society. The paper I wrote for that purpose will be found among my writings, when collected.[1]

With respect to defense, Spain having been several years at war against Great Britain, and being at length join'd by France, which brought us into great danger; and the laboured and long-continued endeavour of our governor, Thomas, to prevail with our Quaker Assembly to pass a militia law, and make other provisions for the security of the province, having proved abortive, I determined to try what might be done by a voluntary association of the people. To promote this, I first wrote and published a pamphlet, entitled PLAIN TRUTH, in which I stated our defenceless situation in strong lights, with the necessity of union and discipline for our defense, and promis'd to propose in a few days an association, to be generally signed for that purpose. The pamphlet had a sudden and surprising effect. I was call'd upon for the instrument of association, and having settled the draft of it with a few friends, I appointed a meeting of the citizens in the large building before mentioned. The house was pretty full; I had prepared a number of printed copies, and provided pens and ink dispers'd all over the room. I harangued them a little on the subject, read the paper, and explained it, and then distributed the copies, which were eagerly signed, not the least objection being made.

[1] See "A Proposal for Promoting Useful Knowledge among the British Plantations in America," May 14, 1743. — ED.

When the company separated, and the papers were collected, we found above twelve hundred hands; and, other copies being dispersed in the country, the subscribers amounted at length to upward of ten thousand. These all furnished themselves as soon as they could with arms, formed themselves into companies and regiments, chose their own officers, and met every week to be instructed in the manual exercise, and other parts of military discipline. The women, by subscriptions among themselves, provided silk colours, which they presented to the companies, painted with different devices and mottos, which I supplied.

The officers of the companies composing the Philadelphia regiment, being met, chose me for their colonel; but, conceiving myself unfit, I declin'd that station, and recommended Mr. Lawrence, a fine person, and man of influence, who was accordingly appointed. I then propos'd a lottery to defray the expense of building a battery below the town, and furnishing it with cannon. It filled expeditiously, and the battery was soon erected, the merlons being fram'd of logs and fill'd with earth. We bought some old cannon from Boston, but, these not being sufficient, we wrote to England for more, soliciting, at the same time, our proprietaries for some assistance, tho' without much expectation of obtaining it.

Meanwhile, Colonel Lawrence, William Allen, Abram Taylor, Esqr., and myself were sent to New York by the associators, commission'd to borrow some cannon of Governor Clinton.[1] He at first refus'd us peremptorily; but at dinner with his council, where there was great drinking

[1] George Clinton was the youngest son of Francis, sixth Earl of Lincoln. He was colonial governor, 1741–1753. He died July 10, 1761.— ED.

of Madeira wine, as the custom of that place then was, he softened by degrees, and said he would lend us six. After a few more bumpers he advanc'd to ten; and at length he very good-naturedly conceded eighteen. They were fine cannon, eighteen-pounders, with their carriages, which we soon transported and mounted on our battery, where the associators kept a nightly guard while the war lasted, and among the rest I regularly took my turn of duty there as a common soldier.

My activity in these operations was agreeable to the governor and council; they took me into confidence, and I was consulted by them in every measure wherein their concurrence was thought useful to the association. Calling in the aid of religion, I propos'd to them the proclaiming a fast, to promote reformation, and implore the blessing of Heaven on our undertaking. They embrac'd the motion; but, as it was the first fast ever thought of in the province, the secretary had no precedent from which to draw the proclamation. My education in New England, where a fast is proclaimed every year, was here of some advantage: I drew it in the accustomed stile, it was translated into German, printed in both languages, and divulg'd thro' the province. This gave the clergy of the different sects an opportunity of influencing their congregations to join in the association, and it would probably have been general among all but Quakers if the peace had not soon interven'd.

It was thought by some of my friends that, by my activity in these affairs, I should offend that sect, and thereby lose my interest in the Assembly of the province, where they formed a great majority. A young gentleman who had likewise some friends in the House, and wished to succeed

me as their clerk, acquainted me that it was decided to displace me at the next election; and he, therefore, in good will, advis'd me to resign, as more consistent with my honour than being turn'd out. My answer to him was, that I had read or heard of some public man who made it a rule never to ask for an office, and never to refuse one when offer'd to him. "I approve," says I, "of his rule, and will practice it with a small addition; I shall never *ask*, never *refuse*, nor ever *resign* an office. If they will have my office of clerk to dispose of to another, they shall take it from me. I will not, by giving it up, lose my right of some time or other making reprisals on my adversaries." I heard, however, no more of this; I was chosen again unanimously as usual at the next election. Possibly, as they dislik'd my late intimacy with the members of council, who had join'd the governors in all the disputes about military preparations, with which the House had long been harass'd, they might have been pleas'd if I would voluntarily have left them; but they did not care to displace me on account merely of my zeal for the association, and they could not well give another reason.

Indeed I had some cause to believe that the defense of the country was not disagreeable to any of them, provided they were not requir'd to assist in it. And I found that a much greater number of them than I could have imagined, tho' against offensive war, were clearly for the defensive. Many pamphlets *pro and con* were publish'd on the subject, and some by good Quakers, in favour of defense, which I believe convinc'd most of their younger people.

A transaction in our fire company gave me some insight into their prevailing sentiments. It had been propos'd that we should encourage the scheme for building a battery by

laying out the present stock, then about sixty pounds, in tickets of the lottery. By our rules, no money could be dispos'd of till the next meeting after the proposal. The company consisted of thirty members, of which twenty-two were Quakers, and eight only of other persuasions. We eight punctually attended the meeting; but, tho' we thought that some of the Quakers would join us, we were by no means sure of a majority. Only one Quaker, Mr. James Morris, appear'd to oppose the measure. He expressed much sorrow that it had ever been propos'd, as he said *Friends* were all against it, and it would create such discord as might break up the company. We told him that we saw no reason for that; we were the minority, and if *Friends* were against the measure, and outvoted us, we must and should, agreeably to the usage of all societies, submit. When the hour for business arriv'd it was mov'd to put the vote; he allow'd we might then do it by the rules, but, as he could assure us that a number of members intended to be present for the purpose of opposing it, it would be but candid to allow a little time for their appearing.

While we were disputing this, a waiter came to tell me two gentlemen below desir'd to speak with me. I went down, and found they were two of our Quaker members. They told me there were eight of them assembled at a tavern just by; that they were determin'd to come and vote with us if there should be occasion, which they hop'd would not be the case, and desir'd we would not call for their assistance if we could do without it, as their voting for such a measure might embroil them with their elders and friends. Being thus secure of a majority, I went up, and after a little seeming hesitation, *agreed to a delay* of another hour. This Mr. Morris allow'd

to be extreamly fair. Not one of his opposing friends appear'd, at which he express'd great surprize; and, at the expiration of the hour, we carry'd the resolution eight to one; and as, of the twenty-two Quakers, eight were ready to vote with us, and thirteen, by their absence, manifested that they were not inclin'd to oppose the measure, I afterward estimated the proportion of Quakers sincerely against defense as one to twenty-one only; for these were all regular members of that society, and in good reputation among them, and had due notice of what was propos'd at that meeting.

The honorable and learned Mr. Logan, who had always been of that sect, was one who wrote an address to them, declaring his approbation of defensive war, and supporting his opinion by many strong arguments. He put into my hands sixty pounds to be laid out in lottery tickets for the battery, with directions to apply what prizes might be drawn wholly to that service. He told me the following anecdote of his old master, William Penn, respecting defense. He came over from England, when a young man, with that proprietary, and as his secretary. It was war-time, and their ship was chas'd by an armed vessel, suppos'd to be an enemy. Their captain prepar'd for defense; but told William Penn, and his company of Quakers, that he did not expect their assistance, and they might retire into the cabin, which they did, except James Logan,[1] who chose to stay upon deck, and was quarter'd to a gun. The suppos'd enemy prov'd a friend, so there was no fighting; but when

[1] James Logan (1674–1751) came to America with William Penn in 1699, and was the business agent for the Penn family. He bequeathed his valuable library, preserved at his country seat, "Stenton," to the city of Philadelphia. – ED.

the secretary went down to communicate the intelligence, William Penn rebuk'd him severely for staying upon deck, and undertaking to assist in defending the vessel, contrary to the principles of *Friends*, especially as it had not been required by the captain. This reproof, being before all the company, piqu'd the secretary, who answer'd, "*I being thy servant, why did thee not order me to come down? But thee was willing enough that I should stay and help to fight the ship when thee thought there was danger.*"

My being many years in the Assembly, the majority of which were constantly Quakers, gave me frequent opportunities of seeing the embarrassment given them by their principle against war, whenever application was made to them, by order of the crown, to grant aids for military purposes. They were unwilling to offend government, on the one hand, by a direct refusal; and their friends, the body of the Quakers, on the other, by a compliance contrary to their principles; hence a variety of evasions to avoid complying, and modes of disguising the compliance when it became unavoidable. The common mode at last was, to grant money under the phrase of its being "*for the king's use,*" and never to inquire how it was applied.

But, if the demand was not directly from the crown, that phrase was found not so proper, and some other was to be invented. As, when powder was wanting (I think it was for the garrison at Louisburg), and the government of New England solicited a grant of some from Pennsilvania, which was much urg'd on the House by Governor Thomas, they could not grant money to buy powder, because that was an ingredient of war; but they voted an aid to New England of three thousand pounds, to be put into the hands of the

governor, and appropriated it for the purchasing of bread, flour, wheat, or *other grain.* Some of the council, desirous of giving the House still further embarrassment, advis'd the governor not to accept provision, as not being the thing he had demanded; but he reply'd, "I shall take the money, for I understand very well their meaning; other grain is gunpowder," which he accordingly bought, and they never objected to it.[1]

It was in allusion to this fact that, when in our fire company we feared the success of our proposal in favour of the lottery, and I had said to my friend Mr. Syng, one of our members, "If we fail, let us move the purchase of a fire-engine with the money; the Quakers can have no objection to that; and then, if you nominate me and I you as a committee for that purpose, we will buy a great gun, which is certainly a *fire-engine.*" "I see," says he, "you have improv'd by being so long in the Assembly; your equivocal project would be just a match for their wheat or *other grain.*"

These embarrassments that the Quakers suffer'd from having establish'd and published it as one of their principles that no kind of war was lawful, and which, being once published, they could not afterwards, however they might change their minds, easily get rid of, reminds me of what I think a more prudent conduct in another sect among us, that of the Dunkers. I was acquainted with one of its founders, Michael Welfare, soon after it appear'd. He complain'd to me that they were grievously calumniated by the zealots of other persuasions, and charg'd with abominable principles and practices, to which they were utter strangers. I told him this had always been the case with

[1] See the votes. — Marg. note.

new sects, and that, to put a stop to such abuse, I imagin'd it might be well to publish the articles of their belief, and the rules of their discipline. He said that it had been propos'd among them, but not agreed to, for this reason: "When we were first drawn together as a society," says he, "it had pleased God to enlighten our minds so far as to see that some doctrines, which we once esteemed truths, were errors; and that others, which we had esteemed errors, were real truths. From time to time He has been pleased to afford us farther light, and our principles have been improving, and our errors diminishing. Now we are not sure that we are arrived at the end of this progression, and at the perfection of spiritual or theological knowledge; and we fear that, if we should once print our confession of faith, we should feel ourselves as if bound and confin'd by it, and perhaps be unwilling to receive further improvement, and our successors still more so, as conceiving what we their elders and founders had done, to be something sacred, never to be departed from."

This modesty in a sect is perhaps a singular instance in the history of mankind, every other sect supposing itself in possession of all truth, and that those who differ are so far in the wrong; like a man traveling in foggy weather, those at some distance before him on the road he sees wrapped up in the fog, as well as those behind him, and also the people in the fields on each side, but near him all appears clear, tho' in truth he is as much in the fog as any of them. To avoid this kind of embarrassment, the Quakers have of late years been gradually declining the public service in the Assembly and in the magistracy, choosing rather to quit their power than their principle.

In order of time, I should have mentioned before, that having, in 1742, invented an open stove for the better warming of rooms, and at the same time saving fuel, as the fresh air admitted was warmed in entering, I made a present of the model to Mr. Robert Grace, one of my early friends, who, having an iron-furnace,[1] found the casting of the plates for these stoves a profitable thing, as they were growing in demand. To promote that demand, I wrote and published a pamphlet, entitled "*An Account of the new-invented Pennsylvania Fireplaces; wherein their Construction and Manner of Operation is particularly explained; their Advantages above every other Method of warming Rooms demonstrated; and all Objections that have been raised against the Use of them answered and obviated,*" etc. This pamphlet had a good effect. Gov'r. Thomas was so pleas'd with the construction of this stove, as described in it, that he offered to give me a patent for the sole vending of them for a term of years; but I declin'd it from a principle which has ever weighed with me on such occasions, viz., *That, as we enjoy great advantages from the inventions of others, we should be glad of an opportunity to serve others by any invention of ours; and this we should do freely and generously.*

An ironmonger in London however, assuming a good deal of my pamphlet, and working it up into his own, and making some small changes in the machine, which rather hurt its operation, got a patent for it there, and made, as I was told, a little fortune by it. And this is not the only instance of patents taken out for my inventions by others, tho' not always with the same success, which I never contested, as having no desire of profiting by patents myself, and

[1] Warwick Furnace, Chester County, Pennsylvania. — Ed.

hating disputes. The use of these fireplaces in very many houses, both of this and the neighbouring colonies, has been, and is, a great saving of wood to the inhabitants.

Peace being concluded, and the association business therefore at an end, I turn'd my thoughts again to the affair of establishing an academy. The first step I took was to associate in the design a number of active friends, of whom the Junto furnished a good part; the next was to write and publish a pamphlet, entitled *Proposals Relating to the Education of Youth in Pennsylvania.* This I distributed among the principal inhabitants gratis; and as soon as I could suppose their minds a little prepared by the perusal of it, I set on foot a subscription for opening and supporting an academy; it was to be paid in quotas yearly for five years; by so dividing it, I judg'd the subscription might be larger, and I believe it was so, amounting to no less, if I remember right, than five thousand pounds.

In the introduction to these proposals, I stated their publication, not as an act of mine, but of some *publick-spirited gentlemen,* avoiding as much as I could, according to my usual rule, the presenting myself to the publick as the author of any scheme for their benefit.

The subscribers, to carry the project into immediate execution, chose out of their number twenty-four trustees, and appointed Mr. Francis,[1] then attorney-general, and myself to draw up constitutions for the government of the academy; which being done and signed, a house was hired, masters

[1] Tench Francis, uncle of Sir Philip Francis, emigrated from England to Maryland, and became attorney for Lord Baltimore. He removed to Philadelphia, and was attorney-general of Pennsylvania from 1741 to 1755. He died in *Philadelphia August 16, 1758.* — ED.

engag'd, and the schools opened, I think, in the same year, 1749.

The scholars increasing fast, the house was soon found too small, and we were looking out for a piece of ground, properly situated, with intention to build, when Providence threw into our way a large house ready built, which, with a few alterations, might well serve our purpose. This was the building before mentioned, erected by the hearers of Mr. Whitefield, and was obtained for us in the following manner.

It is to be noted that the contributions to this building being made by people of different sects, care was taken in the nomination of trustees, in whom the building and ground was to be vested, that a predominancy should not be given to any sect, lest in time that predominancy might be a means of appropriating the whole to the use of such sect, contrary to the original intention. It was therefore that one of each sect was appointed, viz., one Church-of-England man, one Presbyterian, one Baptist, one Moravian, etc., those, in case of vacancy by death, were to fill it by election from among the contributors. The Moravian happen'd not to please his colleagues, and on his death they resolved to have no other of that sect. The difficulty then was, how to avoid having two of some other sect, by means of the new choice.

Several persons were named, and for that reason not agreed to. At length one mention'd me, with the observation that I was merely an honest man, and of no sect at all, which prevail'd with them to chuse me. The enthusiasm which existed when the house was built had long since abated, and its trustees had not been able to procure fresh contributions for paying the ground-rent, and discharging some other debts the building had occasion'd, which embarrass'd them

greatly. Being now a member of both setts of trustees, that for the building and that for the Academy, I had a good opportunity of negotiating with both, and brought them finally to an agreement, by which the trustees for the building were to cede it to those of the academy, the latter undertaking to discharge the debt, to keep for ever open in the building a large hall for occasional preachers, according to the original intention, and maintain a free-school for the instruction of poor children. Writings were accordingly drawn, and on paying the debts the trustees of the academy were put in possession of the premises; and by dividing the great and lofty hall into stories, and different rooms above and below for the several schools, and purchasing some additional ground, the whole was soon made fit for our purpose, and the scholars remov'd into the building. The care and trouble of agreeing with the workmen, purchasing materials, and superintending the work, fell upon me; and I went thro' it the more cheerfully, as it did not then interfere with my private business, having the year before taken a very able, industrious, and honest partner, Mr. David Hall, with whose character I was well acquainted, as he had work'd for me four years. He took off my hands all care of the printing-office, paying me punctually my share of the profits. The partnership continued eighteen years, successfully for us both.

The trustees of the academy, after a while, were incorporated by a charter from the governor; their funds were increas'd by contributions in Britain and grants of land from the proprietaries, to which the Assembly has since made considerable addition; and thus was established the present *University* of Philadelphia. I have been continued

one of its trustees from the beginning, now near forty years, and have had the very great pleasure of seeing a number of the youth who have receiv'd their education in it, distinguish'd by their improv'd abilities, serviceable in public stations, and ornaments to their country.

When I disengaged myself, as above mentioned, from private business, I flatter'd myself that, by the sufficient tho' moderate fortune I had acquir'd, I had secured leisure during the rest of my life for philosophical studies and amusements. I purchased all Dr. Spence's apparatus, who had come from England to lecture here, and I proceeded in my electrical experiments with great alacrity; but the publick, now considering me as a man of leisure, laid hold of me for their purposes, every part of our civil government, and almost at the same time, imposing some duty upon me. The governor put me into the commission of the peace; the corporation of the city chose me of the common council, and soon after an alderman; and the citizens at large chose me a burgess to represent them in Assembly. This latter station was the more agreeable to me, as I was at length tired with sitting there to hear debates, in which, as clerk, I could take no part, and which were often so unentertaining that I was induc'd to amuse myself with making magic squares or circles, or any thing to avoid weariness; and I conceiv'd my becoming a member would enlarge my power of doing good. I would not, however, insinuate that my ambition was not flatter'd by all these promotions; it certainly was; for, considering my low beginning, they were great things to me; and they were still more pleasing, as being so many spontaneous *testimonies* of the public good opinion, and by me entirely *unsolicited*.

The office of justice of the peace I try'd a little, by attending a few courts, and sitting on the bench to hear causes; but finding that more knowledge of the common law than I possess'd was necessary to act in that station with credit, I gradually withdrew from it, excusing myself by my being oblig'd to attend the higher duties of a legislator in the Assembly. My election to this trust was repeated every year for ten years, without my ever asking any elector for his vote, or signifying, either directly or indirectly, any desire of being chosen. On taking my seat in the House, my son was appointed their clerk.

The year following, a treaty being to be held with the Indians at Carlisle, the governor sent a message to the House, proposing that they should nominate some of their members, to be join'd with some members of council, as commissioners for that purpose.[1] The House named the speaker (Mr. Norris) and myself; and, being commission'd, we went to Carlisle, and met the Indians accordingly.

As those people are extreamly apt to get drunk, and, when so, are very quarrelsome and disorderly, we strictly forbad the selling any liquor to them; and when they complain'd of this restriction, we told them that if they would continue sober during the treaty, we would give them plenty of rum when business was over. They promis'd this, and they kept their promise, because they could get no liquor, and the treaty was conducted very orderly, and concluded to mutual satisfaction. They then claim'd and receiv'd the rum; this was in the afternoon: they were near one hundred men, women, and children, and were lodg'd in temporary cabins, built in the form of a square, just without the

[1] *See the votes* to have this more correctly.— *Marg. note.*

town. In the evening, hearing a great noise among them, the commissioners walk'd out to see what was the matter. We found they had made a great bonfire in the middle of the square; they were all drunk, men and women, quarreling and fighting. Their dark-colour'd bodies, half naked, seen only by the gloomy light of the bonfire, running after and beating one another with firebrands, accompanied by their horrid yellings, form'd a scene the most resembling our ideas of hell that could well be imagin'd; there was no appeasing the tumult, and we retired to our lodging. At midnight a number of them came thundering at our door, demanding more rum, of which we took no notice.

The next day, sensible they had misbehav'd in giving us that disturbance, they sent three of their old counselors to make their apology. The orator acknowledg'd the fault, but laid it upon the rum; and then endeavoured to excuse the rum by saying, "*The Great Spirit, who made all things, made every thing for some use, and whatever use he design'd any thing for, that use it should always be put to. Now, when he made rum, he said, 'Let this be for the Indians to get drunk with,' and it must be so.*" And, indeed, if it be the design of Providence to extirpate these savages in order to make room for cultivators of the earth, it seems not improbable that rum may be the appointed means. It has already annihilated all the tribes who formerly inhabited the sea-coast.

In 1751, Dr. Thomas Bond, a particular friend of mine, conceived the idea of establishing a hospital in Philadelphia (a very beneficent design, which has been ascrib'd to me, but was originally his), for the reception and cure of poor sick persons, whether inhabitants of the province or strangers. He was zealous and active in endeavouring to procure sub-

scriptions for it, but the proposal being a novelty in America, and at first not well understood, he met with but small success.

At length he came to me with the compliment that he found there was no such thing as carrying a public-spirited project through without my being concern'd in it. "For," says he, "I am often ask'd by those to whom I propose subscribing, Have you consulted Franklin upon this business? And what does he think of it? And when I tell them that I have not (supposing it rather out of your line), they do not subscribe, but say they will consider of it." I enquired into the nature and probable utility of his scheme, and receiving from him a very satisfactory explanation, I not only subscrib'd to it myself, but engag'd heartily in the design of procuring subscriptions from others. Previously, however, to the solicitation, I endeavoured to prepare the minds of the people by writing on the subject in the newspapers, which was my usual custom in such cases, but which he had omitted.

The subscriptions afterwards were more free and generous; but, beginning to flag, I saw they would be insufficient without some assistance from the Assembly, and therefore propos'd to petition for it, which was done. The country members did not at first relish the project; they objected that it could only be serviceable to the city, and therefore the citizens alone should be at the expense of it; and they doubted whether the citizens themselves generally approv'd of it. My allegation on the contrary, that it met with such approbation as to leave no doubt of our being able to raise two thousand pounds by voluntary donations, they considered as a most extravagant supposition, and utterly impossible.

On this I form'd my plan; and, asking leave to bring in

a bill for incorporating the contributors according to the prayer of their petition, and granting them a blank sum of money, which leave was obtained chiefly on the consideration that the House could throw the bill out if they did not like it, I drew it so as to make the important clause a conditional one, viz., "And be it enacted, by the authority aforesaid, that when the said contributors shall have met and chosen their managers and treasurer, *and shall have raised by their contributions a capital stock of* ——— *value* (the yearly interest of which is to be applied to the accommodating of the sick poor in the said hospital, free of charge for diet, attendance, advice, and medicines), *and shall make the same appear to the satisfaction of the speaker of the Assembly for the time being*, that *then* it shall and may be lawful for the said speaker, and he is hereby required, to sign an order on the provincial treasurer for the payment of two thousand pounds, in two yearly payments, to the treasurer of the said hospital, to be applied to the founding, building, and finishing of the same."

This condition carried the bill through; for the members, who had oppos'd the grant, and now conceiv'd they might have the credit of being charitable without the expense, agreed to its passage; and then, in soliciting subscriptions among the people, we urg'd the conditional promise of the law as an additional motive to give, since every man's donation would be doubled; thus the clause work'd both ways. The subscriptions accordingly soon exceeded the requisite sum, and we claim'd and receiv'd the public gift, which enabled us to carry the design into execution. A convenient and handsome building was soon erected; the institution has by constant experience been found useful, and flourishes to this *day;* and I do not remember any of my political manœuvres,

the success of which gave me at the time more pleasure, or wherein, after thinking of it, I more easily excus'd myself for having made some use of cunning.

It was about this time that another projector, the Rev. Gilbert Tennent,[1] came to me with a request that I would assist him in procuring a subscription for erecting a new meeting-house. It was to be for the use of a congregation he had gathered among the Presbyterians, who were originally disciples of Mr. Whitefield. Unwilling to make myself disagreeable to my fellow-citizens by too frequently soliciting their contributions, I absolutely refus'd. He then desired I would furnish him with a list of the names of persons I knew by experience to be generous and public-spirited. I thought it would be unbecoming in me, after their kind compliance with my solicitations, to mark them out to be worried by other beggars, and therefore refus'd also to give such a list. He then desir'd I would at least give him my advice. "That I will readily do," said I; "and, in the first place, I advise you to apply to all those whom you know will give something; next, to those whom you are uncertain whether they will give anything or not, and show them the list of those who have given; and, lastly, do not neglect those who you are sure will give nothing, for in some of them you may be mistaken." He laugh'd and thank'd me, and said he would take my advice. He did so, for he ask'd of *everybody*, and he obtain'd a much larger sum than he expected, with which he erected the capacious and very elegant meeting-house that stands in Arch-street.

[1] Gilbert Tennent (1703–1764) came to America with his father Rev. William Tennent and taught for a time in the "Log College," from which sprang the College of New Jersey. — ED.

Our city, tho' laid out with a beautifull regularity, the streets large, strait, and crossing each other at right angles, had the disgrace of suffering those streets to remain long unpav'd, and in wet weather the wheels of heavy carriages plough'd them into a quagmire, so that it was difficult to cross them; and in dry weather the dust was offensive. I had liv'd near what was call'd the Jersey Market, and saw with pain the inhabitants wading in mud while purchasing their provisions. A strip of ground down the middle of that market was at length pav'd with brick, so that, being once in the market, they had firm footing, but were often over shoes in dirt to get there. By talking and writing on the subject, I was at length instrumental in getting the street pav'd with stone between the market and the brick'd foot-pavement, that was on each side next the houses. This, for some time, gave an easy access to the market dry-shod; but, the rest of the street not being pav'd, whenever a carriage came out of the mud upon this pavement, it shook off and left its dirt upon it, and it was soon cover'd with mire, which was not remov'd, the city as yet having no scavengers.

After some inquiry, I found a poor, industrious man, who was willing to undertake keeping the pavement clean, by sweeping it twice a week, carrying off the dirt from before all the neighbours' doors, for the sum of sixpence per month, to be paid by each house. I then wrote and printed a paper setting forth the advantages to the neighbourhood that might be obtain'd by this small expense; the greater ease in keeping our houses clean, so much dirt not being brought in by people's feet; the benefit to the shops by more custom, etc., etc., as buyers could more easily get at them; and by not having, in windy weather, the dust blown in upon their goods,

etc., etc. I sent one of these papers to each house, and in a day or two went round to see who would subscribe an agreement to pay these sixpences; it was unanimously sign'd, and for a time well executed. All the inhabitants of the city were delighted with the cleanliness of the pavement that surrounded the market, it being a convenience to all, and this rais'd a general desire to have all the streets paved, and made the people more willing to submit to a tax for that purpose.

After some time I drew a bill for paving the city, and brought it into the Assembly. It was just before I went to England, in 1757, and did not pass till I was gone,[1] and then with an alteration in the mode of assessment, which I thought not for the better, but with an additional provision for lighting as well as paving the streets, which was a great improvement. It was by a private person, the late Mr. John Clifton, his giving a sample of the utility of lamps, by placing one at his door, that the people were first impress'd with the idea of enlighting all the city. The honour of this public benefit has also been ascrib'd to me, but it belongs truly to that gentleman. I did but follow his example, and have only some merit to claim respecting the form of our lamps, as differing from the globe lamps we were at first supply'd with from London. Those we found inconvenient in these respects: they admitted no air below; the smoke, therefore, did not readily go out above, but circulated in the globe, lodg'd on its inside, and soon obstructed the light they were intended to afford; giving, besides, the daily trouble of wiping them clean; and an accidental stroke on one of them would demolish it, and render it totally useless. I therefore suggested the composing them of four flat panes, with a long funnel

[1] See votes.

above to draw up the smoke, and crevices admitting air below, to facilitate the ascent of the smoke; by this means they were kept clean, and did not grow dark in a few hours, as the London lamps do, but continu'd bright till morning, and an accidental stroke would generally break but a single pane, easily repair'd.

I have sometimes wonder'd that the Londoners did not, from the effect holes in the bottom of the globe lamps us'd at Vauxhall have in keeping them clean, learn to have such holes in their street lamps. But, these holes being made for another purpose, viz., to communicate flame more suddenly to the wick by a little flax hanging down thro' them, the other use, of letting in air, seems not to have been thought of; and therefore, after the lamps have been lit a few hours, the streets of London are very poorly illuminated.

The mention of these improvements puts me in mind of one I propos'd, when in London, to Dr. Fothergill, who was among the best men I have known, and a great promoter of useful projects. I had observ'd that the streets, when dry, were never swept, and the light dust carried away; but it was suffer'd to accumulate till wet weather reduc'd it to mud, and then, after lying some days so deep on the pavement that there was no crossing but in paths kept clean by poor people with brooms, it was with great labour rak'd together and thrown up into carts open above, the sides of which suffer'd some of the slush at every jolt on the pavement to shake out and fall, sometimes to the annoyance of foot-passengers. The reason given for not sweeping the dusty streets was, that the dust would fly into the windows of shops and houses.

An accidental occurrence had instructed me how much

sweeping might be done in a little time. I found at my door in Craven-street, one morning, a poor woman sweeping my pavement with a birch broom; she appeared very pale and feeble, as just come out of a fit of sickness. I ask'd who employ'd her to sweep there; she said, "Nobody, but I am very poor and in distress, and I sweeps before gentlefolkses doors, and hopes they will give me something." I bid her sweep the whole street clean, and I would give her a shilling; this was at nine o'clock; at 12 she came for the shilling. From the slowness I saw at first in her working, I could scarce believe that the work was done so soon, and sent my servant to examine it, who reported that the whole street was swept perfectly clean, and all the dust plac'd in the gutter, which was in the middle; and the next rain wash'd it quite away, so that the pavement and even the kennel were perfectly clean.

I then judg'd that, if that feeble woman could sweep such a street in three hours, a strong, active man might have done it in half the time. And here let me remark the convenience of having but one gutter in such a narrow street, running down its middle, instead of two, one on each side, near the footway; for where all the rain that falls on a street runs from the sides and meets in the middle, it forms there a current strong enough to wash away all the mud it meets with; but when divided into two channels, it is often too weak to cleanse either, and only makes the mud it finds more fluid, so that the wheels of carriages and feet of horses throw and dash it upon the foot-pavement, which is thereby rendered foul and slippery, and sometimes splash it upon those who are walking. My proposal, communicated to the good doctor, was as follows:

"For the more effectual cleaning and keeping clean the streets of London and Westminster, it is proposed that the several watchmen be contracted with to have the dust swept up in dry seasons, and the mud rak'd up at other times, each in the several streets and lanes of his round; that they be furnish'd with brooms and other proper instruments for these purposes, to be kept at their respective stands, ready to furnish the poor people they may employ in the service.

"That in the dry summer months the dust be all swept up into heaps at proper distances, before the shops and windows of houses are usually opened, when the scavengers, with close-covered carts, shall also carry it all away.

"That the mud, when rak'd up, be not left in heaps to be spread abroad again by the wheels of carriages and trampling of horses, but that the scavengers be provided with bodies of carts, not plac'd high upon wheels, but low upon sliders, with lattice bottoms, which, being cover'd with straw, will retain the mud thrown into them, and permit the water to drain from it, whereby it will become much lighter, water making the greatest part of its weight; these bodies of carts to be plac'd at convenient distances, and the mud brought to them in wheelbarrows; they remaining where plac'd till the mud is drain'd, and then horses brought to draw them away."

I have since had doubts of the practicability of the latter part of this proposal, on account of the narrowness of some streets, and the difficulty of placing the draining-sleds so as not to encumber too much the passage; but I am still of opinion that the former, requiring the dust to be swept up and carry'd away before the shops are open, is very practicable in the summer, when the days are long; for, in walking

thro' the Strand and Fleet-street one morning at seven o'clock, I observ'd there was not one shop open, tho' it had been daylight and the sun up above three hours; the inhabitants of London chusing voluntarily to live much by candle-light, and sleep by sunshine, and yet often complain, a little absurdly, of the duty on candles, and the high price of tallow.

Some may think these trifling matters not worth minding or relating; but when they consider that tho' dust blown into the eyes of a single person, or into a single shop on a windy day, is but of small importance, yet the great number of the instances in a populous city, and its frequent repetitions give it weight and consequence, perhaps they will not censure very severely those who bestow some attention to affairs of this seemingly low nature. Human felicity is produc'd not so much by great pieces of good fortune that seldom happen, as by little advantages that occur every day. Thus, if you teach a poor young man to shave himself, and keep his razor in order, you may contribute more to the happiness of his life than in giving him a thousand guineas. The money may be soon spent, the regret only remaining of having foolishly consumed it; but in the other case, he escapes the frequent vexation of waiting for barbers, and of their sometimes dirty fingers, offensive breaths, and dull razors; he shaves when most convenient to him, and enjoys daily the pleasure of its being done with a good instrument. With these sentiments I have hazarded the few preceding pages, hoping they may afford hints which some time or other may be useful to a city I love, having lived many years in it very happily, and perhaps to some of our towns in America.

Having been for some time employed by the postmaster-general of America as his comptroller in regulating several

offices, and bringing the officers to account, I was, upon his death in 1753, appointed, jointly with Mr. William Hunter, to succeed him, by a commission from the postmaster-general in England. The American office never had hitherto paid anything to that of Britain. We were to have six hundred pounds a year between us, if we could make that sum out of the profits of the office. To do this, a variety of improvements were necessary; some of these were inevitably at first expensive, so that in the first four years the office became above nine hundred pounds in debt to us. But it soon after began to repay us; and before I was displac'd by a freak of the ministers, of which I shall speak hereafter, we had brought it to yield *three times* as much clear revenue to the crown as the postoffice of Ireland. Since that imprudent transaction, they have receiv'd from it — not one farthing!

The business of the postoffice occasion'd my taking a journey this year to New England, where the College of Cambridge, of their own motion, presented me with the degree of Master of Arts. Yale College, in Connecticut, had before made me a similar compliment.[1] Thus, without studying in any college, I came to partake of their honours. They were conferr'd in consideration of my improvements and discoveries in the electric branch of natural philosophy.

In 1754, war with France being again apprehended, a congress of commissioners from the different colonies was,

[1] "In July [1753] he received the honorary degree of A. M. from Harvard College, Cambridge, and September commencement of the same year he received the diploma of the same degree from us at Yale College, which he calls his first academic Honours, because we from 1749 and onward adopted with avidity and before all the rest of the learned world his electrical and *philoso*phical discoveries." — "The Literary Diary of Ezra Stiles," 1901, Vol. *III, 391.* — ED.

by order of the Lords of Trade, to be assembled at Albany, there to confer with the chiefs of the Six Nations concerning the means of defending both their country and ours. Governor Hamilton, having receiv'd this order, acquainted the House with it, requesting they would furnish proper presents for the Indians, to be given on this occasion; and naming the speaker (Mr. Norris) and myself to join Mr. Thomas Penn and Mr. Secretary Peters as commissioners to act for Pennsylvania. The House approv'd the nomination, and provided the goods for the present, and tho' they did not much like treating out of the provinces; and we met the other commissioners at Albany about the middle of June.

In our way thither, I projected and drew a plan for the union of all the colonies under one government, so far as might be necessary for defense, and other important general purposes. As we pass'd thro' New York, I had there shown my project to Mr. James Alexander and Mr. Kennedy, two gentlemen of great knowledge in public affairs, and, being fortified by their approbation, I ventur'd to lay it before the Congress. It then appeared that several of the commissioners had form'd plans of the same kind. A previous question was first taken, whether a union should be established, which pass'd in the affirmative unanimously. A committee was then appointed, one member from each colony, to consider the several plans and report. Mine happen'd to be preferr'd, and, with a few amendments, was accordingly reported.

By this plan the general government was to be administered by a president-general, appointed and supported by the crown, and a grand council was to be chosen by the representatives of the people of the several colonies, met in their

respective assemblies. The debates upon it in Congress went on daily, hand in hand with the Indian business. Many objections and difficulties were started, but at length they were all overcome, and the plan was unanimously agreed to, and copies ordered to be transmitted to the Board of Trade and to the assemblies of the several provinces. Its fate was singular: the assemblies did not adopt it, as they all thought there was too much *prerogative* in it, and in England it was judg'd to have too much of the *democratic*. The Board of Trade therefore did not approve of it, nor recommend it for the approbation of his majesty; but another scheme was form'd, supposed to answer the same purpose better, whereby the governors of the provinces, with some members of their respective councils, were to meet and order the raising of troops, building of forts, etc., and to draw on the treasury of Great Britain for the expense, which was afterwards to be refunded by an act of Parliament laying a tax on America. My plan, with my reasons in support of it, is to be found among my political papers that are printed.[1]

Being the winter following in Boston, I had much conversation with Governor Shirley upon both the plans. Part of what passed between us on the occasion may also be seen among those papers. The different and contrary reasons of dislike to my plan makes me suspect that it was really the true medium; and I am still of opinion it would have been happy for both sides the water if it had been adopted. The colonies, so united, would have been sufficiently strong to have defended themselves; there would then have been no need of troops from England; of course, the subsequent

[1] See "Papers Relating to a Plan of Union of the Colonies," July, 1754. — ED.

pretence for taxing America, and the bloody contest it occasioned, would have been avoided. But such mistakes are not new; history is full of the errors of states and princes.

> "Look round the habitable world, how few
> Know their own good, or, knowing it, pursue!"

Those who govern, having much business on their hands, do not generally like to take the trouble of considering and carrying into execution new projects. The best public measures are therefore seldom *adopted from previous wisdom, but forc'd by the occasion.*

The Governor of Pennsylvania, in sending it down to the Assembly, express'd his approbation of the plan, "as appearing to him to be drawn up with great clearness and strength of judgment, and therefore recommended it as well worthy of their closest and most serious attention." The House, however, by the management of a certain member, took it up when I happen'd to be absent, which I thought not very fair, and reprobated it without paying any attention to it at all, to my no small mortification.

In my journey to Boston this year, I met at New York with our new governor, Mr. Morris, just arriv'd there from England, with whom I had been before intimately acquainted. He brought a commission to supersede Mr. Hamilton, who, tir'd with the disputes his proprietary instructions subjected him to, had resign'd. Mr. Morris ask'd me if I thought he must expect as uncomfortable an administration. I said, "No; you may, on the contrary, have a very comfortable one, if you will only take care not to enter into any dispute with the Assembly." "My dear friend," says he, pleasantly, "how can you advise my avoiding disputes?

You know I love disputing; it is one of my greatest pleasures; however, to show the regard I have for your counsel, I promise you I will, if possible, avoid them." He had some reason for loving to dispute, being eloquent, an acute sophister, and, therefore, generally successful in argumentative conversation. He had been brought up to it from a boy, his father, as I have heard, accustoming his children to dispute with one another for his diversion, while sitting at table after dinner; but I think the practice was not wise; for, in the course of my observation, these disputing, contradicting, and confuting people are generally unfortunate in their affairs. They get victory sometimes, but they never get good will, which would be of more use to them. We parted, he going to Philadelphia, and I to Boston.

In returning, I met at New York with the votes of the Assembly, by which it appear'd that, notwithstanding his promise to me, he and the House were already in high contention; and it was a continual battle between them as long as he retain'd the government. I had my share of it; for, as soon as I got back to my seat in the Assembly, I was put on every committee for answering his speeches and messages, and by the committees always desired to make the drafts. Our answers, as well as his messages, were often tart, and sometimes indecently abusive; and, as he knew I wrote for the Assembly, one might have imagined that, when we met, we could hardly avoid cutting throats; but he was so good-natur'd a man that no personal difference between him and me was occasion'd by the contest, and we often din'd together.

One afternoon, in the height of this public quarrel, we met in the street. "Franklin," says he, "you must go home

with me and spend the evening; I am to have some company that you will like;" and, taking me by the arm, he led me to his house. In gay conversation over our wine, after supper, he told us, jokingly, that he much admir'd the idea of Sancho Panza, who, when it was proposed to give him a government, requested it might be a government of *blacks*, as then, if he could not agree with his people, he might sell them. One of his friends, who sat next to me, says, "Franklin, why do you continue to side with these damn'd Quakers? Had not you better sell them? The proprietor would give you a good price." "The governor," says I, "has not yet *blacked* them enough." He, indeed, had laboured hard to blacken the Assembly in all his messages, but they wip'd off his colouring as fast as he laid it on, and plac'd it, in return, thick upon his own face; so that, finding he was likely to be negrofied himself, he, as well as Mr Hamilton, grew tir'd of the contest, and quitted the government.

[1] These public quarrels were all at bottom owing to the proprietaries, our hereditary governors, who, when any expense was to be incurred for the defense of their province, with incredible meanness instructed their deputies to pass no act for levying the necessary taxes, unless their vast estates were in the same act expressly excused; and they had even taken bonds of these deputies to observe such instructions. The Assemblies for three years held out against this injustice, tho' constrained to bend at last. At length Captain Denny, who was Governor Morris's successor, ventured to disobey those instructions; how that was brought about I shall show hereafter.

But I am got forward too fast with my story: there are

[1] My acts in Morris's time, military, etc. — *Marg. note.*

still some transactions to be mention'd that happened during the administration of Governor Morris.

War being in a manner commenced with France, the government of Massachusetts Bay projected an attack upon Crown Point, and sent Mr. Quincy to Pennsylvania, and Mr. Pownall, afterward Governor Pownall, to New York, to solicit assistance. As I was in the Assembly, knew its temper, and was Mr. Quincy's countryman, he appli'd to me for my influence and assistance. I dictated his address to them, which was well receiv'd. They voted an aid of ten thousand pounds, to be laid out in provisions. But the governor refusing his assent to their bill (which included this with other sums granted for the use of the crown), unless a clause were inserted exempting the proprietary estate from bearing any part of the tax that would be necessary, the Assembly, tho' very desirous of making their grant to New England effectual, were at a loss how to accomplish it. Mr. Quincy labored hard with the governor to obtain his assent, but he was obstinate.

I then suggested a method of doing the business without the governor, by orders on the trustees of the Loan Office, which, by law, the Assembly had the right of drawing. There was, indeed, little or no money at that time in the office, and therefore I propos'd that the orders should be payable in a year, and to bear an interest of five per cent. With these orders I suppos'd the provisions might easily be purchas'd. The Assembly, with very little hesitation, adopted the proposal. The orders were immediately printed, and I was one of the committee directed to sign and dispose of them. The fund for paying them was the interest of all the paper currency then extant in the province upon loan, together

with the revenue arising from the excise, which being known to be more than sufficient, they obtain'd instant credit, and were not only receiv'd in payment for the provisions, but many money'd people, who had cash lying by them, vested it in those orders, which they found advantageous, as they bore interest while upon hand, and might on any occasion be used as money; so that they were eagerly all bought up, and in a few weeks none of them were to be seen. Thus this important affair was by my means compleated. Mr. Quincy return'd thanks to the Assembly in a handsome memorial, went home highly pleas'd with the success of his embassy, and ever after bore for me the most cordial and affectionate friendship.

The British government, not chusing to permit the union of the colonies as propos'd at Albany, and to trust that union with their defense, lest they should thereby grow too military, and feel their own strength, suspicions and jealousies at this time being entertain'd of them, sent over General Braddock with two regiments of regular English troops for that purpose. He landed at Alexandria, in Virginia, and thence march'd to Frederictown, in Maryland, where he halted for carriages. Our Assembly apprehending, from some information, that he had conceived violent prejudices against them, as averse to the service, wish'd me to wait upon him, not as from them, but as postmaster-general, under the guise of proposing to settle with him the mode of conducting with most celerity and certainty the despatches between him and the governors of the several provinces, with whom he must necessarily have continual correspondence, and of which they propos'd to pay the expense. My son accompanied me on this journey.

We found the general at Frederictown, waiting impatiently for the return of those he had sent thro' the back parts of Maryland and Virginia to collect waggons. I stayed with him several days, din'd with him daily, and had full opportunity of removing all his prejudices, by the information of what the Assembly had before his arrival actually done, and were still willing to do, to facilitate his operations. When I was about to depart, the returns of waggons to be obtained were brought in, by which it appear'd that they amounted only to twenty-five, and not all of those were in serviceable condition. The general and all the officers were surpris'd, declar'd the expedition was then at an end, being impossible, and exclaim'd against the ministers for ignorantly landing them in a country destitute of the means of conveying their stores, baggage, etc., not less than one hundred and fifty waggons being necessary.

I happen'd to say I thought it was pity they had not been landed rather in Pennsylvania, as in that country almost every farmer had his waggon. The general eagerly laid hold of my words, and said, "Then you, sir, who are a man of interest there, can probably procure them for us; and I beg you will undertake it." I ask'd what terms were to be offer'd the owners of the waggons; and I was desir'd to put on paper the terms that appeared to me necessary. This I did, and they were agreed to, and a commission and instructions accordingly prepar'd immediately. What those terms were will appear in the advertisement I publish'd as soon as I arriv'd at Lancaster, which being, from the great and sudden effect it produc'd, a piece of some curiosity, I shall insert it at length, as follows:

"ADVERTISEMENT.

"LANCASTER, *April* 26, 1755.

"Whereas, one hundred and fifty waggons, with four horses to each waggon, and fifteen hundred saddle or pack horses, are wanted for the service of his majesty's forces now about to rendezvous at Will's Creek, and his excellency General Braddock having been pleased to empower me to contract for the hire of the same, I hereby give notice that I shall attend for that purpose at Lancaster from this day to next Wednesday evening, and at York from next Thursday morning till Friday evening, where I shall be ready to agree for waggons and teams, or single horses, on the following terms, viz.: 1. That there shall be paid for each waggon, with four good horses and a driver, fifteen shillings per diem; and for each able horse with a pack-saddle, or other saddle and furniture, two shillings per diem; and for each able horse without a saddle, eighteen pence per diem. 2. That the pay commence from the time of their joining the forces at Will's Creek, which must be on or before the 20th of May ensuing, and that a reasonable allowance be paid over and above for the time necessary for their travelling to Will's Creek and home again after their discharge. 3. Each waggon and team, and every saddle or pack horse, is to be valued by indifferent persons chosen between me and the owner; and in case of the loss of any waggon, team, or other horse in the service, the price according to such valuation is to be allowed and paid. 4. Seven days' pay is to be advanced and paid in hand by me to the owner of each waggon and team, or horse, at the time of contracting, if required, and the remainder to be paid by General Braddock, or by

the paymaster of the army, at the time of their discharge, or from time to time, as it shall be demanded. 5. No drivers of waggons, or persons taking care of the hired horses, are on any account to be called upon to do the duty of soldiers, or be otherwise employed than in conducting or taking care of their carriages or horses. 6. All oats, Indian corn, or other forage that waggons or horses bring to the camp, more than is necessary for the subsistence of the horses, is to be taken for the use of the army, and a reasonable price paid for the same.

"Note. — My son, William Franklin, is empowered to enter into like contracts with any person in Cumberland county. B. FRANKLIN."

"To the inhabitants of the Counties of Lancaster, York, and Cumberland.

"Friends and Countrymen,

"Being occasionally at the camp at Frederic a few days since, I found the general and officers extremely exasperated on account of their not being supplied with horses and carriages, which had been expected from this province, as most able to furnish them; but, through the dissensions between our governor and Assembly, money had not been provided, nor any steps taken for that purpose.

"It was proposed to send an armed force immediately into these counties, to seize as many of the best carriages and horses as should be wanted, and compel as many persons into the service as would be necessary to drive and take care of them.

"I apprehended that the progress of British soldiers through these counties on such an occasion, especially con-

sidering the temper they are in, and their resentment against us, would be attended with many and great inconveniences to the inhabitants, and therefore more willingly took the trouble of trying first what might be done by fair and equitable means. The people of these back counties have lately complained to the Assembly that a sufficient currency was wanting; you have an opportunity of receiving and dividing among you a very considerable sum; for, if the service of this expedition should continue, as it is more than probable it will, for one hundred and twenty days, the hire of these waggons and horses will amount to upward of thirty thousand pounds, which will be paid you in silver and gold of the king's money.

"The service will be light and easy, for the army will scarce march above twelve miles per day, and the waggons and baggage-horses, as they carry those things that are absolutely necessary to the welfare of the army, must march with the army, and no faster; and are, for the army's sake, always placed where they can be most secure, whether in a march or in a camp.

"If you are really, as I believe you are, good and loyal subjects to his majesty, you may now do a most acceptable service, and make it easy to yourselves; for three or four of such as can not separately spare from the business of their plantations a waggon and four horses and a driver, may do it together, one furnishing the waggon, another one or two horses, and another the driver, and divide the pay proportionably between you; but if you do not this service to your king and country voluntarily, when such good pay and reasonable terms are offered to you, your loyalty will be strongly suspected. The king's business must be done, so

many brave troops, come so far for your defense, must not stand idle through your backwardness to do what may be reasonably expected from you; waggons and horses must be had; violent measures will probably be used, and you will be left to seek for a recompense where you can find it, and your case, perhaps, be little pitied or regarded.

"I have no particular interest in this affair, as, except the satisfaction of endeavouring to do good, I shall have only my labour for my pains. If this method of obtaining the waggons and horses is not likely to succeed, I am obliged to send word to the general in fourteen days; and I suppose Sir John St. Clair, the hussar, with a body of soldiers, will immediately enter the province for the purpose, which I shall be sorry to hear, because I am very sincerely and truly your friend and well-wisher,

"B. FRANKLIN."

I received of the general about eight hundred pounds, to be disbursed in advance-money to the waggon owners, etc.; but that sum being insufficient, I advanc'd upward of two hundred pounds more, and in two weeks the one hundred and fifty waggons, with two hundred and fifty-nine carrying horses, were on their march for the camp. The advertisement promised payment according to the valuation, in case any waggon or horse should be lost. The owners, however, alleging they did not know General Braddock, or what dependence might be had on his promise, insisted on my bond for the performance, which I accordingly gave them.

While I was at the camp, supping one evening with the officers of Colonel Dunbar's regiment, he represented to

me his concern for the subalterns, who, he said, were generally not in affluence, and could ill afford, in this dear country, to lay in the stores that might be necessary in so long a march, thro' a wilderness, where nothing was to be purchas'd. I commiserated their case, and resolved to endeavour procuring them some relief. I said nothing, however, to him of my intention, but wrote the next morning to the committee of the Assembly, who had the disposition of some public money, warmly recommending the case of these officers to their consideration, and proposing that a present should be sent them of necessaries and refreshments. My son, who had some experience of a camp life, and of its wants, drew up a list for me, which I enclos'd in my letter. The committee approv'd, and used such diligence that, conducted by my son, the stores arrived at the camp as soon as the waggons. They consisted of twenty parcels, each containing

5 lbs. loaf sugar.
5 lbs. good Muscovado do.
1 lb. good green tea.
1 lb. good bohea do.
5 lbs. good ground coffee.
5 lbs. chocolate.
1-2 cwt. best white biscuit.
1-2 lb. pepper.
1 quart best white wine vinegar.
1 Gloucester cheese.
1 kegg containing 20 lbs. good butter.
2 doz. old Madeira wine.
2 gallons Jamaica spirits.
1 bottle flour of mustard.
2 well-cur'd hams.
1-2 dozen dry'd tongues.
6 lbs. rice.
6 lbs. raisins.

These twenty parcels, well pack'd, were placed on as many horses, each parcel, with the horse, being intended as a present for one officer. They were very thankfully receiv'd, and the kindness acknowledg'd by letters to me from the colonels of both regiments, in the most grateful terms. *The general,* too, was highly satisfied with my

conduct in procuring him the waggons, etc., and readily paid my account of disbursements, thanking me repeatedly, and requesting my farther assistance in sending provisions after him. I undertook this also, and was busily employ'd in it till we heard of his defeat, advancing for the service of my own money, upwards of one thousand pounds sterling, of which I sent him an account. It came to his hands, luckily for me, a few days before the battle, and he return'd me immediately an order on the paymaster for the round sum of one thousand pounds, leaving the remainder to the next account. I consider this payment as good luck, having never been able to obtain that remainder, of which more hereafter.

This general was, I think, a brave man, and might probably have made a figure as a good officer in some European war. But he had too much self-confidence, too high an opinion of the validity of regular troops, and too mean a one of both Americans and Indians. George Croghan,[1] our Indian interpreter, join'd him on his march with one hundred of those people, who might have been of great use to his army as guides, scouts, etc., if he had treated them kindly; but he slighted and neglected them, and they gradually left him.

In conversation with him one day, he was giving me some account of his intended progress. "After taking Fort Duquesne," says he, "I am to proceed to Niagara; and, having taken that, to Frontenac, if the season will allow time; and I suppose it will, for Duquesne can hardly detain

[1] George Croghan was an Indian trader in Pennsylvania as early as 1746. He was captain of Provincials in Braddock's expedition, 1755. He died in Passayunk, Pennsylvania, in 1782. — ED.

me above three or four days; and then I see nothing that can obstruct my march to Niagara." Having before revolv'd in my mind the long line his army must make in their march by a very narrow road, to be cut for them thro' the woods and bushes, and also what I had read of a former defeat of fifteen hundred French, who invaded the Iroquois country, I had conceiv'd some doubts and some fears for the event of the campaign. But I ventur'd only to say, "To be sure, sir, if you arrive well before Duquesne, with these fine troops, so well provided with artillery, that place not yet completely fortified, and as we hear with no very strong garrison, can probably make but a short resistance. The only danger I apprehend of obstruction to your march is from ambuscades of Indians, who, by constant practice, are dexterous in laying and executing them; and the slender line, near four miles long, which your army must make, may expose it to be attack'd by surprise in its flanks, and to be cut like a thread into several pieces, which, from their distance, can not come up in time to support each other."

He smil'd at my ignorance, and reply'd, "These savages may, indeed, be a formidable enemy to your raw American militia, but upon the king's regular and disciplin'd troops, sir, it is impossible they should make any impression." I was conscious of an impropriety in my disputing with a military man in matters of his profession, and said no more. The enemy, however, did not take the advantage of his army which I apprehended its long line of march expos'd it to, but let it advance without interruption till within nine miles of the place; and then, when more in a body (for it had just passed a river, where the front had halted till all were come over), and in a more open part of the woods than any it had

pass'd, attack'd its advanced guard by a heavy fire from behind trees and bushes, which was the first intelligence the general had of an enemy's being near him. This guard being disordered, the general hurried the troops up to their assistance, which was done in great confusion, thro' waggons, baggage, and cattle; and presently the fire came upon their flank: the officers, being on horseback, were more easily distinguish'd, pick'd out as marks, and fell very fast; and the soldiers were crowded together in a huddle, having or hearing no orders, and standing to be shot at till two-thirds of them were killed; and then, being seiz'd with a panick, the whole fled with precipitation.

The waggoners took each a horse out of his team and scamper'd; their example was immediately followed by others; so that all the waggons, provisions, artillery, and stores were left to the enemy. The general, being wounded, was brought off with difficulty; his secretary, Mr. Shirley, was killed by his side; and out of eighty-six officers, sixty-three were killed or wounded, and seven hundred and fourteen men killed out of eleven hundred. These eleven hundred had been picked men from the whole army; the rest had been left behind with Colonel Dunbar, who was to follow with the heavier part of the stores, provisions, and baggage. The flyers, not being pursu'd, arriv'd at Dunbar's camp, and the panick they brought with them instantly seiz'd him and all his people; and, tho' he had now above one thousand men, and the enemy who had beaten Braddock did not at most exceed four hundred Indians and French together, instead of proceeding, and endeavouring to recover some of the lost honour, he ordered all the stores, ammunition, etc., to be destroy'd, that he might have more horses

to assist his flight towards the settlements, and less lumber to remove. He was there met with requests from the governors of Virginia, Maryland, and Pennsylvania, that he would post his troops on the frontier, so as to afford some protection to the inhabitants; but he continu'd his hasty march thro' all the country, not thinking himself safe till he arriv'd at Philadelphia, where the inhabitants could protect him. This whole transaction gave us Americans the first suspicion that our exalted ideas of the prowess of British regulars had not been well founded.

In their first march, too, from their landing till they got beyond the settlements, they had plundered and stripped the inhabitants, totally ruining some poor families, besides insulting, abusing, and confining the people if they remonstrated. This was enough to put us out of conceit of such defenders, if we had really wanted any. How different was the conduct of our French friends in 1781, who, during a march thro' the most inhabited part of our country from Rhode Island to Virginia, near seven hundred miles, occasioned not the smallest complaint for the loss of a pig, a chicken, or even an apple.

Captain Orme, who was one of the general's aids-de-camp, and, being grievously wounded, was brought off with him, and continu'd with him to his death, which happen'd in a few days, told me that he was totally silent all the first day, and at night only said, "*Who would have thought it?*" That he was silent again the following day, saying only at last, "*We shall better know how to deal with them another time*"; and dy'd in a few minutes after.

The secretary's papers, with all the general's orders, instructions, and correspondence, falling into the enemy's

hands, they selected and translated into French a number of the articles, which they printed, to prove the hostile intentions of the British court before the declaration of war. Among these I saw some letters of the general to the ministry, speaking highly of the great service I had rendered the army, and recommending me to their notice. David Hume, too, who was some years after secretary to Lord Hertford, when minister in France, and afterward to General Conway, when secretary of state, told me he had seen among the papers in that office, letters from Braddock highly recommending me. But, the expedition having been unfortunate, my service, it seems, was not thought of much value, for those recommendations were never of any use to me.

As to rewards from himself, I ask'd only one, which was, that he would give orders to his officers not to enlist any more of our bought servants, and that he would discharge such as had been already enlisted. This he readily granted, and several were accordingly return'd to their masters, on my application. Dunbar, when the command devolv'd on him, was not so generous. He being at Philadelphia, on his retreat, or rather flight, I apply'd to him for the discharge of the servants of three poor farmers of Lancaster county that he had enlisted, reminding him of the late general's orders on that head. He promised me that, if the masters would come to him at Trenton, where he should be in a few days on his march to New York, he would there deliver their men to them. They accordingly were at the expense and trouble of going to Trenton, and there he refus'd to perform his promise, to their great loss and disappointment.

As soon as the loss of the waggons and horses was generally known, all the owners came upon me for the valuation which I had given bond to pay. Their demands gave me a great deal of trouble, my acquainting them that the money was ready in the paymaster's hands, but that orders for paying it must first be obtained from General Shirley, and my assuring them that I had apply'd to that general by letter; but, he being at a distance, an answer could not soon be receiv'd, and they must have patience, all this was not sufficient to satisfy, and some began to sue me. General Shirley at length relieved me from this terrible situation by appointing commissioners to examine the claims, and ordering payment. They amounted to near twenty thousand pound, which to pay would have ruined me.

Before we had the news of this defeat, the two Doctors Bond came to me with a subscription paper for raising money to defray the expense of a grand firework, which it was intended to exhibit at a rejoicing on receipt of the news of our taking Fort Duquesne. I looked grave, and said it would, I thought, be time enough to prepare for the rejoicing when we knew we should have occasion to rejoice. They seem'd surpris'd that I did not immediately comply with their proposal. "Why the d—l!" says one of them, "you surely don't suppose that the fort will not be taken?" "I don't know that it will not be taken, but I know that the events of war are subject to great uncertainty." I gave them the reasons of my doubting; the subscription was dropt, and the projectors thereby missed the mortification they would have undergone if the firework had been prepared. Dr. Bond, on some other occasion afterward, said that he did *not like* Franklin's forebodings.

Governor Morris, who had continually worried the Assembly with message after message before the defeat of Braddock, to beat them into the making of acts to raise money for the defense of the province, without taxing, among others, the proprietary estates, and had rejected all their bills for not having such an exempting clause, now redoubled his attacks with more hope of success, the danger and necessity being greater. The Assembly, however, continu'd firm, believing they had justice on their side, and that it would be giving up an essential right if they suffered the governor to amend their money-bills. In one of the last, indeed, which was for granting fifty thousand pounds, his propos'd amendment was only of a single word. The bill express'd "that all estates, real and personal, were to be taxed, those of the proprietaries *not* excepted." His amendment was, for *not* read *only:* a small, but very material alteration. However, when the news of this disaster reached England, our friends there, whom we had taken care to furnish with all the Assembly's answers to the governor's messages, rais'd a clamor against the proprietaries for their meanness and injustice in giving their governor such instructions; some going so far as to say that, by obstructing the defense of their province, they forfeited their right to it. They were intimidated by this, and sent orders to their receiver-general to add five thousand pounds of their money to whatever sum might be given by the Assembly for such purpose.

This, being notified to the House, was accepted in lieu of their share of a general tax, and a new bill was form'd, with an exempting clause, which passed accordingly. By this act I was appointed one of the commissioners for disposing of the money, sixty thousand pounds. I had been active

in modelling the bill and procuring its passage, and had, at the same time, drawn a bill for establishing and disciplining a voluntary militia, which I carried thro' the House without much difficulty, as care was taken in it to leave the Quakers at their liberty. To promote the association necessary to form the militia, I wrote a dialogue,[1] stating and answering all the objections I could think of to such a militia, which was printed, and had, as I thought, great effect.

While the several companies in the city and country were forming, and learning their exercise, the governor prevail'd with me to take charge of our North-western frontier, which was infested by the enemy, and provide for the defense of the inhabitants by raising troops and building a line of forts. I undertook this military business, tho' I did not conceive myself well qualified for it. He gave me a commission with full powers, and a parcel of blank commissions for officers, to be given to whom I thought fit. I had but little difficulty in raising men, having soon five hundred and sixty under my command. My son, who had in the preceding war been an officer in the army rais'd against Canada, was my aid-de-camp, and of great use to me. The Indians had burned Gnadenhut, a village settled by the Moravians, and massacred the inhabitants; but the place was thought a good situation for one of the forts.

In order to march thither, I assembled the companies at Bethlehem, the chief establishment of those people. I was surprised to find it in so good a posture of defense; the destruction of Gnadenhut had made them apprehend danger. The principal buildings were defended by a stockade; they

[1] This dialogue and the militia act are in the Gentleman's Magazine for February and March, 1756. — *Marg. note.*

had purchased a quantity of arms and ammunition from New York, and had even plac'd quantities of small paving stones between the windows of their high stone houses, for their women to throw down upon the heads of any Indians that should attempt to force into them. The armed brethren, too, kept watch, and reliev'd as methodically as in any garrison town. In conversation with the bishop, Spangenberg,[1] I mention'd this my surprise; for, knowing they had obtained an act of Parliament exempting them from military duties in the colonies, I had suppos'd they were conscientiously scrupulous of bearing arms. He answer'd me that it was not one of their established principles, but that, at the time of their obtaining that act, it was thought to be a principle with many of their people. On this occasion, however, they, to their surprise, found it adopted by but a few. It seems they were either deceiv'd in themselves, or deceiv'd the Parliament; but common sense, aided by present danger, will sometimes be too strong for whimsical opinions.

It was the beginning of January when we set out upon this business of building forts. I sent one detachment toward the Minisink, with instructions to erect one for the security of that upper part of the country, and another to the lower part, with similar instructions; and I concluded to go myself with the rest of my force to Gnadenhut, where a fort was tho't more immediately necessary. The Moravians procur'd me five waggons for our tools, stores, baggage, etc.

Just before we left Bethlehem, eleven farmers, who had been driven from their plantations by the Indians, came to

[1] Augustus Gottlieb Spangenberg (1704–1792), a bishop of the Moravian church, laboured among the German sects in Pennsylvania.—ED.

me requesting a supply of firearms, that they might go back and fetch off their cattle. I gave them each a gun with suitable ammunition. We had not march'd many miles before it began to rain, and it continued raining all day; there were no habitations on the road to shelter us, till we arriv'd near night at the house of a German, where, and in his barn, we were all huddled together, as wet as water could make us. It was well we were not attack'd in our march, for our arms were of the most ordinary sort, and our men could not keep their gun locks dry. The Indians are dextrous in contrivances for that purpose, which we had not. They met that day the eleven poor farmers above mentioned, and killed ten of them. The one who escap'd inform'd that his and his companions' guns would not go off, the priming being wet with the rain.

The next day being fair, we continu'd our march, and arriv'd at the desolated Gnadenhut. There was a saw-mill near, round which were left several piles of boards, with which we soon hutted ourselves; an operation the more necessary at that inclement season, as we had no tents. Our first work was to bury more effectually the dead we found there, who had been half interr'd by the country people.

The next morning our fort was plann'd and mark'd out, the circumference measuring four hundred and fifty-five feet, which would require as many palisades to be made of trees, one with another, of a foot diameter each. Our axes, of which we had seventy, were immediately set to work to cut down trees, and, our men being dextrous in the use of them, great despatch was made. Seeing the trees fall so fast, I had the curiosity to look at my watch when two men began to cut at a pine; in six minutes they had it upon the ground,

and I found it of fourteen inches diameter. Each pine made three palisades of eighteen feet long, pointed at one end. While these were preparing, our other men dug a trench all round, of three feet deep, in which the palisades were to be planted; and, our waggons, the bodys being taken off, and the fore and hind wheels separated by taking out the pin which united the two parts of the perch, we had ten carriages, with two horses each, to bring the palisades from the woods to the spot. When they were set up, our carpenters built a stage of boards all round within, about six feet high, for the men to stand on when to fire thro' the loopholes. We had one swivel gun, which we mounted on one of the angles, and fir'd it as soon as fix'd, to let the Indians know, if any were within hearing, that we had such pieces; and thus our fort, if such a magnificent name may be given to so miserable a stockade, was finish'd in a week, though it rain'd so hard every other day that the men could not work.

This gave me occasion to observe, that, when men are employ'd, they are best content'd; for on the days they worked they were good-natur'd and cheerful, and, with the consciousness of having done a good day's work, they spent the evening jollily; but on our idle days they were mutinous and quarrelsome, finding fault with their pork, the bread, etc., and in continual ill-humour, which put me in mind of a sea-captain, whose rule it was to keep his men constantly at work; and, when his mate once told him that they had done every thing, and there was nothing further to employ them about, "*Oh,*" *says he,* "*make them scour the anchor.*"

This kind of fort, however contemptible, is a sufficient defense against Indians, who have no cannon. Finding ourselves now posted securely, and having a place to retreat

to on occasion, we ventur'd out in parties to scour the adjacent country. We met with no Indians, but we found the places on the neighbouring hills where they had lain to watch our proceedings. There was an art in their contrivance of those places that seems worth mention. It being winter, a fire was necessary for them; but a common fire on the surface of the ground would by its light have discover'd their position at a distance. They had therefore dug holes in the ground about three feet diameter, and somewhat deeper; we saw where they had with their hatchets cut off the charcoal from the sides of burnt logs lying in the woods. With these coals they had made small fires in the bottom of the holes, and we observ'd among the weeds and grass the prints of their bodies, made by their laying all round, with their legs hanging down in the holes to keep their feet warm, which, with them, is an essential point. This kind of fire, so manag'd, could not discover them, either by its light, flame, sparks, or even smoke: it appear'd that their number was not great, and it seems they saw we were too many to be attacked by them with prospect of advantage.

We had for our chaplain a zealous Presbyterian minister, Mr. Beatty, who complained to me that the men did not generally attend his prayers and exhortations. When they enlisted, they were promised, besides pay and provisions, a gill of rum a day, which was punctually serv'd out to them, half in the morning, and the other half in the evening; and I observ'd they were as punctual in attending to receive it; upon which I said to Mr. Beatty, "It is, perhaps, below the dignity of your profession to act as steward of the rum, but if you were to deal it out and only just after prayers, you would have them all about you." He liked the tho't, under-

took the office, and, with the help of a few hands to measure out the liquor, executed it to satisfaction, and never were prayers more generally and more punctually attended; so that I thought this method preferable to the punishment inflicted by some military laws for non-attendance on divine service.

I had hardly finish'd this business, and got my fort well stor'd with provisions, when I receiv'd a letter from the governor, acquainting me that he had call'd the Assembly, and wished my attendance there, if the posture of affairs on the frontiers was such that my remaining there was no longer necessary. My friends, too, of the Assembly, pressing me by their letters to be, if possible, at the meeting, and my three intended forts being now compleated, and the inhabitants contented to remain on their farms under that protection, I resolved to return; the more willingly, as a New England officer, Colonel Clapham, experienced in Indian war, being on a visit to our establishment, consented to accept the command. I gave him a commission, and, parading the garrison, had it read before them, and introduc'd him to them as an officer who, from his skill in military affairs, was much more fit to command them than myself; and, giving them a little exhortation, took my leave. I was escorted as far as Bethlehem, where I rested a few days to recover from the fatigue I had undergone. The first night, being in a good bed, I could hardly sleep, it was so different from my hard lodging on the floor of our hut at Gnaden wrapt only in a blanket or two.

While at Bethlehem, I inquir'd a little into the practice of the Moravians: some of them had accompanied me, and all were very kind to me. I found they work'd for a common

stock, eat at common tables, and slept in common dormitories, great numbers together. In the dormitories I observed loopholes, at certain distances all along just under the ceiling, which I thought judiciously placed for change of air. I was at their church, where I was entertain'd with good musick, the organ being accompanied with violins, hautboys, flutes, clarinets, etc. I understood that their sermons were not usually preached to mixed congregations of men, women, and children, as is our common practice, but that they assembled sometimes the married men, at other times their wives, then the young men, the young women, and the little children, each division by itself. The sermon I heard was to the latter, who came in and were plac'd in rows on benches; the boys under the conduct of a young man, their tutor, and the girls conducted by a young woman. The discourse seem'd well adapted to their capacities, and was deliver'd in a pleasing, familiar manner, coaxing them, as it were, to be good. They behav'd very orderly, but looked pale and unhealthy, which made me suspect they were kept too much within doors, or not allow'd sufficient exercise.

I inquir'd concerning the Moravian marriages, whether the report was true that they were by lot. I was told that lots were us'd only in particular cases; that generally, when a young man found himself dispos'd to marry, he inform'd the elders of his class, who consulted the elder ladies that govern'd the young women. As these elders of the different sexes were well acquainted with the tempers and dispositions of their respective pupils, they could best judge what matches were suitable, and their judgments were generally acquiesc'd in; but if, for example, it should happen that two or three young women were found to be equally proper for the young

man, the lot was then recurred to. I objected, if the matches are not made by the mutual choice of the parties, some of them may chance to be very unhappy. "And so they may," answer'd my informer, "if you let the parties chuse for themselves;" which, indeed, I could not deny.

Being returned to Philadelphia, I found the association went on swimmingly, the inhabitants that were not Quakers having pretty generally come into it, formed themselves into companies, and chose their captains, lieutenants, and ensigns, according to the new law. Dr. B. visited me, and gave me an account of the pains he had taken to spread a general good liking to the law, and ascribed much to those endeavours. I had had the vanity to ascribe all to my *Dialogue;* however, not knowing but that he might be in the right, I let him enjoy his opinion, which I take to be generally the best way in such cases. The officers, meeting, chose me to be colonel of the regiment, which I this time accepted. I forget how many companies we had, but we paraded about twelve hundred well-looking men, with a company of artillery, who had been furnished with six brass field-pieces, which they had become so expert in the use of as to fire twelve times in a minute. The first time I reviewed my regiment they accompanied me to my house, and would salute me with some rounds fired before my door, which shook down and broke several glasses of my electrical apparatus. And my new honour proved not much less brittle; for all our commissions were soon after broken by a repeal of the law in England.

During this short time of my colonelship, being about to set out on a journey to Virginia, the officers of my regiment took it into their heads that it would be proper for them to escort me out of town, as far as the Lower Ferry.

Just as I was getting on horseback they came to my door, between thirty and forty, mounted, and all in their uniforms. I had not been previously acquainted with the project, or I should have prevented it, being naturally averse to the assuming of state on any occasion; and I was a good deal chagrin'd at their appearance, as I could not avoid their accompanying me. What made it worse was, that, as soon as we began to move, they drew their swords and rode with them naked all the way. Somebody wrote an account of this to the proprietor, and it gave him great offense. No such honour had been paid him when in the province, nor to any of his governors; and he said it was only proper to princes of the blood royal, which may be true for aught I know, who was, and still am, ignorant of the etiquette in such cases.

This silly affair, however, greatly increased his rancour against me, which was before not a little, on account of my conduct in the Assembly respecting the exemption of his estate from taxation, which I had always oppos'd very warmly, and not without severe reflections on his meanness and injustice of contending for it. He accused me to the ministry as being the great obstacle to the king's service, preventing, by my influence in the House, the proper form of the bills for raising money, and he instanced this parade with my officers as a proof of my having an intention to take the government of the province out of his hands by force. He also applied to Sir Everard Fawkener, the postmaster-general, to deprive me of my office; but it had no other effect than to procure from Sir Everard a gentle admonition.

Notwithstanding the continual wrangle between the governor and the House, in which I, as a member, had so

large a share, there still subsisted a civil intercourse between that gentleman and myself, and we never had any personal difference. I have sometimes since thought that his little or no resentment against me, for the answers it was known I drew up to his messages, might be the effect of professional habit, and that, being bred a lawyer, he might consider us both as merely advocates for contending clients in a suit, he for the proprietaries and I for the Assembly. He would, therefore, sometimes call in a friendly way to advise with me on difficult points, and sometimes, tho' not often, take my advice.

We acted in concert to supply Braddock's army with provisions; and, when the shocking news arrived of his defeat, the governor sent in haste for me, to consult with him on measures for preventing the desertion of the back counties. I forget now the advice I gave; but I think it was, that Dunbar should be written to, and prevail'd with, if possible, to post his troops on the frontiers for their protection, till, by reenforcements from the colonies, he might be able to proceed on the expedition. And, after my return from the frontier, he would have had me undertake the conduct of such an expedition with provincial troops, for the reduction of Fort Duquesne, Dunbar and his men being otherwise employed; and he proposed to commission me as general. I had not so good an opinion of my military abilities as he profess'd to have, and I believe his professions must have exceeded his real sentiments; but probably he might think that my popularity would facilitate the raising of the men, and my influence in Assembly, the grant of money to pay them, and that, perhaps, without taxing the proprietary estate. Finding me not so forward to engage as he expected, the project

was dropt, and he soon after left the government, being superseded by Captain Denny.

Before I proceed in relating the part I had in public affairs under this new governor's administration, it may not be amiss here to give some account of the rise and progress of my philosophical reputation.

In 1746, being at Boston, I met there with a Dr. Spence, who was lately arrived from Scotland, and show'd me some electric experiments. They were imperfectly perform'd, as he was not very expert; but, being on a subject quite new to me, they equally surpris'd and pleased me. Soon after my return to Philadelphia, our library company receiv'd from Mr. P. Collinson, Fellow of the Royal Society of London, a present of a glass tube, with some account of the use of it in making such experiments. I eagerly seized the opportunity of repeating what I had seen at Boston; and, by much practice, acquir'd great readiness in performing those, also, which we had an account of from England, adding a number of new ones. I say much practice, for my house was continually full, for some time, with people who came to see these new wonders.

To divide a little this incumbrance among my friends, I caused a number of similar tubes to be blown at our glass-house, with which they furnish'd themselves, so that we had at length several performers. Among these, the principal was Mr. Kinnersley, an ingenious neighbor, who, being out of business, I encouraged to undertake showing the experiments for money, and drew up for him two lectures, in which the experiments were rang'd in such order, and accompanied with such explanations in such method, as that the foregoing should assist in comprehending the following. He

procur'd an elegant apparatus for the purpose, in which all the little machines that I had roughly made for myself were nicely form'd by instrument-makers. His lectures were well attended, and gave great satisfaction; and after some time he went thro' the colonies, exhibiting them in every capital town, and pick'd up some money. In the West India islands, indeed, it was with difficulty the experiments could be made, from the general moisture of the air.

Oblig'd as we were to Mr. Collinson for his present of the tube, etc., I thought it right he should be inform'd of our success in using it, and wrote him several letters containing accounts of our experiments. He got them read in the Royal Society, where they were not at first thought worth so much notice as to be printed in their Transactions. One paper, which I wrote for Mr. Kinnersley, on the sameness of lightning with electricity, I sent to Dr. Mitchel, an acquaintance of mine, and one of the members also of that society, who wrote me word that it had been read, but was laughed at by the connoisseurs. The papers, however, being shown to Dr. Fothergill, he thought them of too much value to be stifled, and advis'd the printing of them. Mr. Collinson then gave them to *Cave* for publication in his Gentleman's Magazine; but he chose to print them separately in a pamphlet, and Dr. Fothergill wrote the preface. Cave, it seems, judged rightly for his profit, for by the additions that arrived afterward they swell'd, to a quarto volume, which has had five editions, and cost him nothing for copy-money.

It was, however, some time before those papers were much taken notice of in England. A copy of them happening to fall into the hands of the Count de Buffon, a philosopher

deservedly of great reputation in France, and, indeed, all over Europe, he prevailed with M. Dalibard to translate them into French, and they were printed at Paris. The publication offended the Abbé Nollet, preceptor in Natural Philosophy to the royal family, and an able experimenter, who had form'd and publish'd a theory of electricity, which then had the general vogue. He could not at first believe that such a work came from America, and said it must have been fabricated by his enemies at Paris, to decry his system. Afterwards, having been assur'd that there really existed such a person as Franklin at Philadelphia, which he had doubted, he wrote and published a volume of Letters, chiefly address'd to me, defending his theory, and denying the verity of my experiments, and of the positions deduc'd from them.[1]

I once purpos'd answering the abbé, and actually began the answer; but, on consideration that my writings contain'd a description of experiments which any one might repeat and verify, and if not to be verifi'd, could not be defended; or of observations offer'd as conjectures, and not delivered dogmatically, therefore not laying me under any obligation to defend them; and reflecting that a dispute between two persons, writing in different languages, might be lengthened greatly by mistranslations, and thence misconceptions of one another's meaning, much of one of the abbé's letters being founded on an error in the translation, I concluded to let my papers shift for themselves, believing it was better to spend what time I could spare from public business in making new experiments, than in disputing about those already made. I therefore never answered M. Nollet, and the event gave

[1] "Lettres sur l'Électricité, par M. l'Abbé Nollet." Paris: MDCCLIII. Nine letters, six of which are addressed to Franklin. — ED.

me no cause to repent my silence; for my friend M. le Roy, of the Royal Academy of Sciences, took up my cause and refuted him; my book was translated into the Italian, German, and Latin languages; and the doctrine it contain'd was by degrees universally adopted by the philosophers of Europe, in preference to that of the abbé; so that he lived to see himself the last of his sect, except Monsieur B——, of Paris, his *élève* and immediate disciple.

What gave my book the more sudden and general celebrity, was the success of one of its proposed experiments, made by Messrs. Dalibard and De Lor at Marly, for drawing lightning from the clouds. This engag'd the public attention every where. M. de Lor, who had an apparatus for experimental philosophy, and lectur'd in that branch of science, undertook to repeat what he called the *Philadelphia Experiments;* and, after they were performed before the king and court, all the curious of Paris flocked to see them. I will not swell this narrative with an account of that capital experiment, nor of the infinite pleasure I receiv'd in the success of a similar one I made soon after with a kite at Philadelphia, as both are to be found in the histories of electricity.

Dr. Wright, an English physician, when at Paris, wrote to a friend, who was of the Royal Society, an account of the high esteem my experiments were in among the learned abroad, and of their wonder that my writings had been so little noticed in England. The society, on this, resum'd the consideration of the letters that had been read to them; and the celebrated Dr. Watson drew up a summary account of them, and of all I had afterwards sent to England on the subject, which he accompanied with some praise of the writer.

This summary was then printed in their Transactions; and some members of the society in London, particularly the very ingenious Mr. Canton, having verified the experiment of procuring lightning from the clouds by a pointed rod, and acquainting them with the success, they soon made me more than amends for the slight with which they had before treated me. Without my having made any application for that honour, they chose me a member, and voted that I should be excus'd the customary payments, which would have amounted to twenty-five guineas; and ever since have given me their Transactions gratis.[1] They also presented me with the gold medal of Sir Godfrey Copley for the year 1753, the delivery of which was accompanied by a very handsome speech of the president, Lord Macclesfield, wherein I was highly honoured.

Our new governor, Captain Denny, brought over for me the before-mentioned medal from the Royal Society, which he presented to me at an entertainment given him by the city. He accompanied it with very polite expressions of his esteem for me, having, as he said, been long acquainted with my character. After dinner, when the company, as was customary at that time, were engag'd in drinking, he took me aside into another room, and acquainted me that he had been advis'd by his friends in England to cultivate a friendship with me, as one who was capable of giving him the best advice, and of contributing most effectually to the making his administration easy; that he therefore desired of all things to have a good understanding with me, and he begg'd me to be assur'd of his readiness on all occasions to render

[1] For a fuller account of his election see his letter to William Franklin, *December 19, 1767.* — ED.

me every service that might be in his power. He said much to me, also, of the proprietor's good disposition towards the province, and of the advantage it might be to us all, and to me in particular, if the opposition that had been so long continu'd to his measures was dropt, and harmony restor'd between him and the people; in effecting which, it was thought no one could be more serviceable than myself; and I might depend on adequate acknowledgments and recompenses, etc., etc. The drinkers, finding we did not return immediately to the table, sent us a decanter of Madeira, which the governor made liberal use of, and in proportion became more profuse of his solicitations and promises.

My answers were to this purpose: that my circumstances, thanks to God, were such as to make proprietary favours unnecessary to me; and that, being a member of the Assembly, I could not possibly accept of any; that, however, I had no personal enmity to the proprietary, and that, whenever the public measures he propos'd should appear to be for the good of the people, no one should espouse and forward them more zealously than myself; my past opposition having been founded on this, that the measures which had been urged were evidently intended to serve the proprietary interest, with great prejudice to that of the people; that I was much obliged to him (the governor) for his professions of regard to me, and that he might rely on every thing in my power to make his administration as easy as possible, hoping at the same time that he had not brought with him the same unfortunate instruction his predecessor had been hamper'd with.

On this he did not then explain himself; but when he afterwards came to do business with the Assembly, they

appear'd again, the disputes were renewed, and I was as active as ever in the opposition, being the penman, first, of the request to have a communication of the instructions, and then of the remarks upon them, which may be found in the votes of the time, and in the Historical Review I afterward publish'd. But between us personally no enmity arose; we were often together; he was a man of letters, had seen much of the world, and was very entertaining and pleasing in conversation. He gave me the first information that my old friend Jas. Ralph was still alive; that he was esteem'd one of the best political writers in England; had been employ'd in the dispute between Prince Frederic and the king, and had obtain'd a pension of three hundred a year; that his reputation was indeed small as a poet, Pope having damned his poetry in the Dunciad; but his prose was thought as good as any man's.

[1]The Assembly finally finding the proprietary obstinately persisted in manacling their deputies with instructions inconsistent not only with the privileges of the people, but with the service of the crown, resolv'd to petition the king against them, and appointed me their agent to go over to England, to present and support the petition. The House had sent up a bill to the governor, granting a sum of sixty thousand pounds for the king's use (ten thousand pounds of which was subjected to the orders of the then general, Lord Loudoun), which the governor absolutely refus'd to pass, in compliance with his instructions.

I had agreed with Captain Morris, of the paquet at New York, for my passage, and my stores were put on board,

[1] The many unanimous resolves of the Assembly — what date? — *Marg. note.*

when Lord Loudoun arriv'd at Philadelphia, expressly, as he told me, to endeavour an accommodation between the governor and Assembly, that his majesty's service might not be obstructed by their dissensions. Accordingly, he desir'd the governor and myself to meet him, that he might hear what was to be said on both sides. We met and discuss'd the business. In behalf of the Assembly, I urg'd all the various arguments that may be found in the public papers of that time, which were of my writing, and are printed with the minutes of the Assembly; and the governor pleaded his instructions; the bond he had given to observe them, and his ruin if he disobey'd, yet seemed not unwilling to hazard himself if Lord Loudoun would advise it. This his lordship did not chuse to do, though I once thought I had nearly prevail'd with him to do it; but finally he rather chose to urge the compliance of the Assembly; and he entreated me to use my endeavours with them for that purpose, declaring that he would spare none of the king's troops for the defense of our frontiers, and that, if we did not continue to provide for that defense ourselves, they must remain expos'd to the enemy.

I acquainted the House with what had pass'd, and, presenting them with a set of resolutions I had drawn up, declaring our rights, and that we did not relinquish our claim to those rights, but only suspended the exercise of them on this occasion thro' *force*, against which we protested, they at length agreed to drop that bill, and frame another conformable to the proprietary instructions. This of course the governor pass'd, and I was then at liberty to proceed on my voyage. But, in the meantime, the paquet had sailed with my sea-stores, which was some loss to me, and my only

recompense was his lordship's thanks for my service, all the credit of obtaining the accommodation falling to his share.

He set out for New York before me; and, as the time for dispatching the paquet-boats was at his disposition, and there were two then remaining there, one of which, he said, was to sail very soon, I requested to know the precise time, that I might not miss her by any delay of mine. His answer was, "I have given out that she is to sail on Saturday next; but I may let you know, *entre nous*, that if you are there by Monday morning, you will be in time, but do not delay longer." By some accidental hinderance at a ferry, it was Monday noon before I arrived, and I was much afraid she might have sailed, as the wind was fair; but I was soon made easy by the information that she was still in the harbor, and would not move till the next day. One would imagine that I was now on the very point of departing for Europe. I thought so; but I was not then so well acquainted with his lordship's character, of which *indecision* was one of the strongest features. I shall give some instances. It was about the beginning of April that I came to New York, and I think it was near the end of June before we sail'd. There were then two of the paquet-boats, which had been long in port, but were detained for the general's letters, which were always to be ready to-morrow. Another paquet arriv'd; she too was detain'd; and, before we sail'd, a fourth was expected. Ours was the first to be dispatch'd, as having been there longest. Passengers were engag'd in all, and some extremely impatient to be gone, and the merchants uneasy about their letters, and the orders they had given for insurance (it being war time) for fall goods; but their anxiety

avail'd nothing; his lordship's letters were not ready; and yet whoever waited on him found him always at his desk, pen in hand, and concluded he must needs write abundantly.

Going myself one morning to pay my respects, I found in his antechamber one Innis, a messenger of Philadelphia, who had come from thence express with a paquet from Governor Denny for the General. He delivered to me some letters from my friends there, which occasion'd my inquiring when he was to return, and where he lodg'd, that I might send some letters by him. He told me he was order'd to call to-morrow at nine for the general's answer to the governor, and should set off immediately. I put my letters into his hands the same day. A fortnight after I met him again in the same place. "So, you are soon return'd, Innis?" "*Return'd!* no, I am not *gone* yet." "How so?" "I have called here by order every morning these two weeks past for his lordship's letter, and it is not yet ready." "Is it possible, when he is so great a writer? for I see him constantly at his escritoire." "Yes," says Innis, "but he is like St. George on the signs, *always on horseback, and never rides on.*" This observation of the messenger was, it seems, well founded; for, when in England, I understood that Mr. Pitt gave it as one reason for removing this general, and sending Generals Amherst and Wolfe, *that the minister never heard from him, and could not know what he was doing.*

This daily expectation of sailing, and all the three paquets going down to Sandy Hook, to join the fleet there, the passengers thought it best to be on board, lest by a sudden order the ships should sail, and they be left behind. There, if I remember right, we were about six weeks, consuming our

sea-stores, and oblig'd to procure more. At length the fleet sail'd, the General and all his army on board, bound to Louisburg, with intent to besiege and take that fortress; all the paquet-boats in company ordered to attend the General's ship, ready to receive his dispatches when they should be ready. We were out five days before we got a letter with leave to part, and then our ship quitted the fleet and steered for England. The other two paquets he still detained, carried them with him to Halifax, where he stayed some time to exercise the men in sham attacks upon sham forts, then alter'd his mind as to besieging Louisburg, and return'd to New York, with all his troops, together with the two paquets above mentioned, and all their passengers! During his absence the French and savages had taken Fort George, on the frontier of that province, and the savages had massacred many of the garrison after capitulation.

I saw afterwards in London Captain Bonnell, who commanded one of those paquets. He told me that, when he had been detain'd a month, he acquainted his lordship that his ship was grown foul, to a degree that must necessarily hinder her fast sailing, a point of consequence for a paquet-boat, and requested an allowance of time to heave her down and clean her bottom. He was asked how long time that would require. He answer'd, three days. The general replied, "If you can do it in one day, I give leave; otherwise not; for you must certainly sail the day after to-morrow." So he never obtain'd leave, though detained afterwards from day to day during full three months.

I saw also in London one of Bonnell's passengers, who was so enrag'd against his lordship for deceiving and detaining him so long at New York, and then carrying him to

Halifax and back again, that he swore he would sue him for damages. Whether he did or not, I never heard; but, as he represented the injury to his affairs, it was very considerable.

On the whole, I wonder'd much how such a man came to be intrusted with so important a business as the conduct of a great army; but, having since seen more of the great world, and the means of obtaining, and motives for giving places, my wonder is diminished. General Shirley, on whom the command of the army devolved upon the death of Braddock, would, in my opinion, if continued in place, have made a much better campaign than that of Loudoun in 1757, which was frivolous, expensive, and disgraceful to our nation beyond conception; for, tho' Shirley was not a bred soldier, he was sensible and sagacious in himself, and attentive to good advice from others, capable of forming judicious plans, and quick and active in carrying them into execution. Loudoun, instead of defending the colonies with his great army, left them totally expos'd while he paraded idly at Halifax, by which means Fort George was lost, besides, he derang'd all our mercantile operations, and distress'd our trade, by a long embargo on the exportation of provisions, on pretence of keeping supplies from being obtain'd by the enemy, but in reality for beating down their price in favour of the contractors, in whose profits, it was said, perhaps from suspicion only, he had a share. And, when at length the embargo was taken off, by neglecting to send notice of it to Charlestown, the Carolina fleet was detain'd near three months longer, whereby their bottoms were so much damaged by the worm that a great part of them foundered in their passage home.

Shirley was, I believe, sincerely glad of being relieved from so burdensome a charge as the conduct of an army must be to a man unacquainted with military business. I was at the entertainment given by the city of New York to Lord Loudoun, on his taking upon him the command. Shirley, tho' thereby superseded, was present also. There was a great company of officers, citizens, and strangers, and, some chairs having been borrowed in the neighborhood, there was one among them very low, which fell to the lot of Mr. Shirley. Perceiving it as I sat by him, I said, "They have given you, sir, too low a seat." "No matter," says he, "Mr. Franklin, I find *a low seat* the easiest."

While I was, as afore mention'd, detain'd at New York, I receiv'd all the accounts of the provisions, etc., that I had furnish'd to Braddock, some of which accounts could not sooner be obtain'd from the different persons I had employ'd to assist in the business. I presented them to Lord Loudoun, desiring to be paid the ballance. He caus'd them to be regularly examined by the proper officer, who, after comparing every article with its voucher, certified them to be right; and the balance due for which his lordship promis'd to give me an order on the paymaster. This was, however, put off from time to time; and, tho' I call'd often for it by appointment, I did not get it. At length, just before my departure, he told me he had, on better consideration, concluded not to mix his accounts with those of his predecessors. "And you," says he, "when in England, have only to exhibit your accounts at the treasury, and you will be paid immediately."

I mention'd, but without effect, the great and unexpected expense I had been put to by being detain'd so long at New

York, as a reason for my desiring to be presently paid; and to on my observing that it was not right I should be put to any further trouble or delay in obtaining the money I had advanc'd, as I charged no commission for my service, "O, Sir," says he, "you must not think of persuading us that you are no gainer; we understand better those affairs, and know that every one concerned in supplying the army finds means, in the doing it, to fill his own pockets." I assur'd him that was not my case, and that I had not pocketed a farthing; but he appear'd clearly not to believe me; and, indeed, I have since learnt that immense fortunes are often made in such employments. As to my ballance, I am not paid it to this day, of which more hereafter.

Our captain of the paquet had boasted much, before we sailed, of the swiftness of his ship; unfortunately, when we came to sea, she proved the dullest of ninety-six sail, to his no small mortification. After many conjectures respecting the cause, when we were near another ship almost as dull as ours, which, however, gain'd upon us, the captain ordered all hands to come aft, and stand as near the ensign staff as possible. We were, passengers included, about forty persons. While we stood there, the ship mended her pace, and soon left her neighbour far behind, which prov'd clearly what our captain suspected, that she was loaded too much by the head. The casks of water, it seems, had been all plac'd forward; these he therefore order'd to be mov'd further aft, on which the ship recover'd her character, and proved the best sailer in the fleet.

The captain said she had once gone at the rate of thirteen knots, which is accounted thirteen miles per hour. We had on board, as a passenger, Captain Kennedy, of the Navy,

to contended that it was impossible, and that no ship er sailed so fast, and that there must have been some or in the division of the log-line, or some mistake in heav- the log. A wager ensu'd between the two captains, to be cided when there should be sufficient wind. Kennedy ereupon examin'd rigorously the log-line, and, being satis- d with that, he determin'd to throw the log himself. Ac- rdingly some days after, when the wind blew very fair and esh, and the captain of the paquet, Lutwidge, said he eliev'd she then went at the rate of thirteen knots, Kennedy ade the experiment, and own'd his wager lost.

The above fact I give for the sake of the following obser- ation. It has been remark'd, as an imperfection in the rt of ship-building, that it can never be known, till she is ried, whether a new ship will or will not be a good sailer; or that the model of a good-sailing ship has been exactly ollow'd in a new one, which has prov'd, on the contrary, emarkably dull. I apprehend that this may partly be ccasion'd by the different opinions of seamen respecting the modes of lading, rigging, and sailing of a ship; each has his system; and the same vessel, laden by the judgment nd orders of one captain, shall sail better or worse than vhen by the orders of another. Besides, it scarce ever hap- ens that a ship is form'd, fitted for the sea, and sail'd by he same person. One man builds the hull, another rigs er, a third lades and sails her. No one of these has the dvantage of knowing all the ideas and experience of the thers, and, therefore, can not draw just conclusions from a ombination of the whole.

Even in the simple operation of sailing when at sea, I ave often observ'd different judgments in the officers who

commanded the successive watches, the wind being the same. One would have the sails trimm'd sharper or flatter than another, so that they seem'd to have no certain rule to govern by. Yet I think a set of experiments might be instituted, first, to determine the most proper form of the hull for swift sailing; next, the best dimensions and properest place for the masts; then the form and quantity of sails, and their position, as the wind may be; and, lastly, the disposition of the lading. This is an age of experiments, and I think a set accurately made and combin'd would be of great use. I am persuaded, therefore, that ere long some ingenious philosopher will undertake it, to whom I wish success.

We were several times chas'd in our passage, but outsail'd every thing, and in thirty days had soundings. We had a good observation, and the captain judg'd himself so near our port, Falmouth, that, if we made a good run in the night, we might be off the mouth of that harbor in the morning, and by running in the night might escape the notice of the enemy's privateers, who often cruis'd near the entrance of the channel. Accordingly, all the sail was set that we could possibly make, and the wind being very fresh and fair, we went right before it, and made great way. The captain, after his observation, shap'd his course, as he thought, so as to pass wide of the Scilly Isles; but it seems there is sometimes a strong indraught setting up St. George's Channel, which deceives seamen and caused the loss of Sir Cloudesley Shovel's squadron. This indraught was probably the cause of what happened to us.

We had a watchman plac'd in the bow, to whom they often called, "*Look well out before there,*" and he as often answered, "*Ay, ay*"; but perhaps had his eyes shut, and

was half asleep at the time, they sometimes answering, as is said, mechanically; for he did not see a light just before us, which had been hid by the studding-sails from the man at the helm, and from the rest of the watch, but by an accidental yaw of the ship was discover'd, and occasion'd a great alarm, we being very near it, the light appearing to me as big as a cart-wheel. It was midnight, and our captain fast asleep; but Captain Kennedy, jumping upon deck, and seeing the danger, ordered the ship to wear round, all sails standing; an operation dangerous to the masts, but it carried us clear, and we escaped shipwreck, for we were running right upon the rocks on which the light-house was erected. This deliverance impressed me strongly with the utility of light-houses, and made me resolve to encourage the building more of them in America, if I should live to return there.

In the morning it was found by the soundings, etc., that we were near our port, but a thick fog hid the land from our sight. About nine o'clock the fog began to rise, and seem'd to be lifted up from the water like the curtain at a play-house, discovering underneath, the town of Falmouth, the vessels in its harbor, and the fields that surrounded it. This was a most pleasing spectacle to those who had been so long without any other prospects than the uniform view of a vacant ocean, and it gave us the more pleasure as we were now free from the anxieties which the state of war occasion'd.

I set out immediately, with my son, for London, and we only stopt a little by the way to view Stonehenge on Salisbury Plain, and Lord Pembroke's house and gardens, with his very curious antiquities at Wilton. We arrived in London the 27th of July, 1757.[1]

[1] Here terminates the Autobiography, as published by Wm. Temple Franklin.

As soon as I was settled in a lodging Mr. Charles had provided for me, I went to visit Dr. Fothergill, to whom I was strongly recommended, and whose counsel respecting my proceedings I was advis'd to obtain. He was against an immediate complaint to government, and thought the proprietaries should first be personally appli'd to, who might possibly be induc'd by the interposition and persuasion of some private friends, to accommodate matters amicably. I then waited on my old friend and correspondent, Mr. Peter Collinson, who told me that John Hanbury, the great Virginia merchant, had requested to be informed when I should arrive, that he might carry me to Lord Granville's, who was then President of the Council and wished to see me as soon as possible. I agreed to go with him the next morning. Accordingly Mr. Hanbury called for me and took me in his carriage to that nobleman's, who receiv'd me with great civility; and after some questions respecting the present state of affairs in America and discourse thereupon, he said to me: "You Americans have wrong ideas of the nature of your constitution; you contend that the king's instructions to his governors are not laws, and think yourselves at liberty to regard or disregard them at your own discretion. But those instructions are not like the pocket instructions given to a minister going abroad, for regulating his conduct in some trifling point of ceremony. They are first drawn up by judges learned in the laws; they are then considered, debated, and perhaps amended in Council, after which they are signed by the king. They are then, so far as they relate

lin and his successors. What follows was written in the last year of Dr. Franklin's life, and was first printed (in English) in Mr. Bigelow's edition of *1868*. — ED.

to you, the *law of the land*, for the king is the LEGISLATOR OF THE COLONIES." I told his lordship this was new doctrine to me. I had always understood from our charters that our laws were to be made by our Assemblies, to be presented indeed to the king for his royal assent, but that being once given the king could not repeal or alter them. And as the Assemblies could not make permanent laws without his assent, so neither could he make a law for them without theirs. He assur'd me I was totally mistaken. I did not think so, however, and his lordship's conversation having a little alarm'd me as to what might be the sentiments of the court concerning us, I wrote it down as soon as I return'd to my lodgings.[1] I recollected that about 20 years before, a clause in a bill brought into Parliament by the ministry had propos'd to make the king's instructions laws in the colonies, but the clause was thrown out by the Commons, for which we adored them as our friends and friends of liberty, till by their conduct towards us in 1765 it seem'd that they had refus'd that point of sovereignty to the king only that they might reserve it for themselves.

After some days, Dr. Fothergill having spoken to the proprietaries, they agreed to a meeting with me at Mr. T. Penn's house in Spring Garden. The conversation at first consisted of mutual declarations of disposition to reasonable accommodations, but I suppose each party had its own ideas of what should be meant by *reasonable*. We then went into consideration of our several points of complaint, which I enumerated. The proprietaries justify'd their conduct as well as they could, and I the Assembly's. We now appeared very wide, and so far from each other in our opinions as

[1] See also Franklin to James Bowdoin, January 13, 1772. — ED.

to discourage all hope of agreement. However, it was concluded that I should give them the heads of our complaints in writing, and they promis'd then to consider them. I did so soon after, but they put the paper into the hands of their solicitor, Ferdinand John Paris, who managed for them all their law business in their great suit with the neighbouring proprietary of Maryland, Lord Baltimore, which had subsisted 70 years, and wrote for them all their papers and messages in their dispute with the Assembly. He was a proud, angry man, and as I had occasionally in the answers of the Assembly treated his papers with some severity, they being really weak in point of argument and haughty in expression, he had conceived a mortal enmity to me, which discovering itself whenever we met, I declin'd the proprietary's proposal that he and I should discuss the heads of complaint between our two selves, and refus'd treating with any one but them. They then by his advice put the paper into the hands of the Attorney and Solicitor-General for their opinion and counsel upon it, where it lay unanswered a year wanting eight days, during which time I made frequent demands of an answer from the proprietaries, but without obtaining any other than that they had not yet received the opinion of the Attorney and Solicitor-General. What it was when they did receive it I never learnt, for they did not communicate it to me, but sent a long message to the Assembly drawn and signed by Paris, reciting my paper, complaining of its want of formality, as a rudeness on my part, and giving a flimsy justification of their conduct, adding that they should be willing to accommodate matters if the Assembly would send out *some person of candour* to treat with them *for that* purpose, intimating thereby that I was not such.

The want of formality or rudeness was, probably, my not having address'd the paper to them with their assum'd titles of True and Absolute Proprietaries of the Province of Pennsylvania, which I omitted as not thinking it necessary in a paper, the intention of which was only to reduce to a certainty by writing, what in conversation I had delivered *viva voce.*

But during this delay, the Assembly having prevailed with Gov'r Denny to pass an act taxing the proprietary estate in common with the estates of the people, which was the grand point in dispute, they omitted answering the message.

When this act however came over, the proprietaries, counselled by Paris, determined to oppose its receiving the royal assent. Accordingly they petition'd the king in Council, and a hearing was appointed in which two lawyers were employ'd by them against the act, and two by me in support of it. They alledg'd that the act was intended to load the proprietary estate in order to spare those of the people, and that if it were suffer'd to continue in force, and the proprietaries who were in odium with the people, left to their mercy in proportioning the taxes, they would inevitably be ruined. We reply'd that the act had no such intention, and would have no such effect. That the assessors were honest and discreet men under an oath to assess fairly and equitably, and that any advantage each of them might expect in lessening his own tax by augmenting that of the proprietaries was too trifling to induce them to perjure themselves. This is the purport of what I remember as urged by both sides, except that we insisted strongly on the mischievous consequences that must attend a repeal, for that

the money, £100,000, being printed and given to the king's use, expended in his service, and now spread among the people, the repeal would strike it dead in their hands to the ruin of many, and the total discouragement of future grants, and the selfishness of the proprietors in soliciting such a general catastrophe, merely from a groundless fear of their estate being taxed too highly, was insisted on in the strongest terms. On this, Lord Mansfield, one of the counsel rose, and beckoning me took me into the clerk's chamber, while the lawyers were pleading, and asked me if I was really of opinion that no injury would be done the proprietary estate in the execution of the act. I said certainly. "Then," says he, "you can have little objection to enter into an engagement to assure that point." I answer'd, "None at all." He then call'd in Paris, and after some discourse, his lordship's proposition was accepted on both sides; a paper to the purpose was drawn up by the Clerk of the Council, which I sign'd with Mr. Charles, who was also an Agent of the Province for their ordinary affairs, when Lord Mansfield returned to the Council Chamber, where finally the law was allowed to pass. Some changes were however recommended and we also engaged they should be made by a subsequent law, but the Assembly did not think them necessary; for one year's tax having been levied by the act before the order of Council arrived, they appointed a committee to examine the proceedings of the assessors, and on this committee they put several particular friends of the proprietaries. After a full enquiry, they unanimously sign'd a report that they found the tax had been assess'd with perfect equity.

The Assembly looked into my entering into the first part of the engagement, as an essential service to the Province,

since it secured the credit of the paper money then spread over all the country. They gave me their thanks in form when I return'd. But the proprietaries were enraged at Governor Denny for having pass'd the act, and turn'd him out with threats of suing him for breach of instructions which he had given bond to observe. He, however, having done it at the instance of the General, and for His Majesty's service, and having some powerful interest at court, despis'd the threats and they were never put in execution. . . . [Unfinished.]

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